2012 no. 25

**AFKONDIGINGSBLAD
VAN
ARUBA**

MINISTERIËLE REGELING van 9 mei 2012 tot wijziging van de Regeling vluchtuitvoering (AB 2000 no. 85)

Uitgegeven, 20 juni 2012

De minister van Justitie en Onderwijs,

A.L. Dowers

De minister van TOERISME, TRANSPORT en ARBEID,

In overweging genomen hebbende:

dat het in verband met de implementatie van de laatste wijzigingen in de voor Aruba geldende Bijlage 6, Deel 1 van het Verdrag van Chicago (Stb. 1947, H165), alsmede de laatste wijzigingen van JAR-OPS 1 en JAR-OPS 3, het wenselijk is de Regeling vluchtuitvoering (AB 2000 no. 85) aan te passen;

Gelet op:

artikel 10 van de Luchtvaartverordening (AB 1989 no. GT 58);

HEEFT BESLOTEN:

Artikel I

De Regeling vluchtuitvoering (AB 2000 no. 85) wordt gewijzigd als volgt:

A. in artikel 1 wordt na de definitie van houder ingevoegd:
hoofdvestiging : hoofdkantoor van de onderneming van waaruit de bedrijfsvoering en het financieel beheer wordt uitgeoefend ;

B. artikel 2 wordt gewijzigd als volgt:
1º. het eerste lid komt te luiden:
1. Voor zover bij internationale overeenkomst niet anders is bepaald, is het verboden met luchtvaartuigen vluchten tegen vergoeding uit te voeren zonder in het bezit te zijn van een geldig daartoe door de Minister afgegeven AOC. ;
2º. in het tweede lid, onderdeel a, wordt het woord “of” vervangen door: en;

C. artikel 3 wordt gewijzigd als volgt:
1º. in artikel 3, eerste en tweede lid, wordt na het woord “voorwaarden” ingevoegd: en beperkingen;
2º. aan artikel 3 wordt een nieuw lid toegevoegd luidende:
4. Indien de Minister zijn bevoegdheid tot het vaststellen van voorwaarden of beperkingen aan een AOC geheel of gedeeltelijk mandateert, geschiedt dat aan de directeur. ;

D. artikel 7 wordt gewijzigd als volgt:
1º. onderdeel d komt te luiden:
d. beschikt over een onderhoudssysteem bevattende een managementsysteem ter behoud van de luchtwaardigheid, bedoeld in JAR-OPS, delen M en C;
2º. onderdeel h komt te luiden:
h. beschikt over een door de Directeur goedgekeurde handboek vluchtuitvoering, met inbegrip van alle wijzigingen daarvan, dat voldoet aan JAR-OPS, deel P;
3º. onderdeel k komt te luiden:
k. ervoor zorgt dat de uitrusting en configuratie van de luchtvaartuigen voldoen aan de eisen die zijn vervat in JAR-OPS, delen K, L en S en JAR-26;
4º. na onderdeel m worden twee onderdelen toegevoegd luidende:
n. beschikt over een veiligheidsmanagementsysteem, bedoeld in AUA-OPS 1.037;
o. de operationele zeggenschap vanuit Aruba uitoefent. ;

E. artikel 8 komt als volgt te luiden:

Artikel 8

1. In een AOC staat in ieder geval steeds de volgende gegevens vermeld:
a. een opschrift met Aruba als land van uitgifte van de AOC;
b. de nummer van de AOC;
c. de datum waarop de AOC is uitgegeven, alsmede de datum waarop de geldigheid daarvan verloopt;
d. de naam van de houder van de AOC, alsmede het adres van het hoofdkantoor;
e. de contactgegevens van de manager van operaties of een verwijzing hiernaar in een door de directeur goedgekeurde handboek;
f. ondertekening door de Minister als de autoriteit die de AOC uitgeeft.

2. Aan een AOC wordt een bijlage opgenomen met:

a. de nummer van de AOC waarop de bijlage betrekking heeft;
b. de naam van de houder van de AOC, alsmede het adres van het hoofdkantoor;
c. de van toepassing zijnde voorwaarden en beperkingen, bedoeld in artikel 3;
d. ondertekening door of namens de Minister.

3. Het model van de AOC met het daarbij behorende formulier voor de van toepassing zijnde voorwaarden en beperkingen is opgenomen in de bij deze regeling behorende bijlage D. ;

F. de aanduiding “Hoofdstuk V Slotbepalingen” wordt vervangen door “Hoofdstuk V Straf- en slotbepalingen” en wordt een nieuw artikel ingevoegd luidende:

Artikel 11a

Overtreding van artikel 2, eerste lid, is een strafbaar feit als bedoeld in artikel 22 van de landsverordening. ;

G. de bijlagen B en C worden vervangen door de bij deze ministeriële regeling behorende bijlagen B en C.

Artikel II

Deze ministriële regeling treedt in werking met ingang van de dag na die van zijn plaatsing in het Afkondigingsblad van Aruba.

O.E. Oduber

BIJLAGE B

AANVULLINGEN JAR-OPS 1

AUA - OPS 1.001 Applicability (See Appendix 1 to JAR-OPS 1.001)

(a) JAR-OPS 1 For Aruba prescribes requirements applicable to the operation of any civil aeroplane for the purpose of commercial air transportation by any operator whose principal place of business is in Aruba and that has been issued an economical authority in accordance with Article 13 of the Aviation Act of 1989 No. GT 58. JAR-OPS 1 does not apply to aeroplanes when used in military, customs and police services;

(b) The requirements in JAR-OPS Part 1 are applicable in Aruba as of the day after the date of publication of the Ministerial Decree for flight operations (Regeling Vluchtuitvoering) in the official gazette of Aruba (Afkondigingsblad van Aruba) to all operators as stated in the Ministerial decree – Air Transport (Luchtvervoer);

(c) The requirements in JAR-OPS Part 1 are applicable to all operators in Aruba as of 1 January 1996;

(d) Throughout JAR-OPS 1 For Aruba, “JAA Member State” shall be read and interpretated as “EASA Member State or Aruba”;

(e) Throughout JAR-OPS 1 For Aruba, “Authority” shall be read and interpretated as “Director of Civil Aviation”.

App. 1 to JAR-OPS 1.005(a), item (48)

(48) All single-engine turbine-powered aeroplanes operated at night and/or in IMC shall have an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall have an automatic trend monitoring system.

AUA - OPS 1.025 (c)

(c) In addition to paragraph (a) above, an operator shall ensure that flight crew members demonstrate the ability to speak and understand the language used for radiotelephony communications as specified in ICAO Annex 1.

AUA-OPS 1.030 (c)

(c) If the aircraft is not registered in Aruba, the Operator shall ensure that the MEL does not affect the aeroplane’s compliance with the airworthiness requirements applicable in the State of Registry.

AUA - OPS 1.037 Safety Management

(a) An operator shall implement a safety management system acceptable to the Authority that, as a minimum:

1) identifies safety hazards;

2) ensures the implementation of remedial action necessary to maintain agreed safety performance;

3) provides for continuous monitoring and regular assessment of the safety performance; and

4) aims at a continuous improvement of the overall performance of the safety management system.

(b) The safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.

(c) The system shall include an occurrence reporting scheme to enable the collation and assessment of relevant incident and accident reports in order to identify adverse trends or to address deficiencies in the interests of flight safety. The scheme shall protect the identity of the reporter and include the possibility that reports may be submitted anonymously. (See AMC OPS 1.037(c))

(d) An operator of an aeroplane of a maximum certificated take-off mass in excess of 27. 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system. The flight data analysis programme shall be non- punitive and contain adequate safeguards to protect the source(s) of the data.

(e) The operator shall appoint a person accountable for managing the safety management system. Proposals for corrective action resulting from the safety management system shall be the responsibility of the person accountable for managing the system.

(f) The effectiveness of changes resulting from proposals for of corrective action identified by the safety management system shall be monitored by the Quality Manager.

(g) An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

(h) An operator shall, as part of its safety management system, assess the level of rescue and fire fighting service (RFFS) protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used. (See IEM OPS 1.037(g)).

(i) Information related to the level of RFFS protection that is deemed acceptable by the operator shall be contained in the Operations Manual

(j) The requirements in subsections (a), (b), (e) and (f) of this article are furthermore applicable to DCA approved maintenance organizations established in Aruba and maintenance organizations subcontracted by holders of an Aruban AOC.

AUA-OPS 1.125 Documents to be carried

(See Appendix 1 to JAR-OPS 1.125)

(a) An operator shall ensure that the following are carried on each flight:

(1) The Certificate of Registration;

(2) The Certificate of Airworthiness;

(3) The original or a copy of the Noise Certificate (if applicable), including an English translation, where one has been provided by the Authority responsible for issuing the noise certificate;

(4) The original or a certified copy of the Air Operator Certificate, including the operations specifications relevant to the aeroplane type, issued in conjunction with the certificate;

(5) The Aircraft Radio Licence; and

(6) The original or a copy of the Third party liability Insurance Certificate(s), which cover the aeroplane, its crew, passengers and third party liability clauses.

(b) Each flight crew member shall, on each flight, carry a valid flight crew licence with appropriate rating(s) for the purpose of the flight.

AUA - OPS 1.145 Power to inspect

An operator shall ensure that any person authorized by the Authority is permitted at anytime to board and fly in any aeroplane operated in accordance with an AOC issued by the Authority and to enter and remain on the flight deck provided the person has properly identified himself.

AUA - OPS 1.165 Leasing

(a) Terminology

Terms used in this paragraph have the following meaning:

(1) Dry lease - Is when the aeroplane is operated under the AOC of the lessee.

(2) Wet lease - Is when the aeroplane is operated under the AOC of the lessor.

(3) JAA operator - An operator certificated under JAR - OPS Part 1 by one of the JAA Member States;

(b) General

(1) All leases require prior approval from the Authority.

(2) Wet lease-in

An Aruban operator shall not wet lease-in an aeroplane in any of the following situations:

(i) If there is evidence that the State of lessor does not provide an adequate level of safety oversight;

(ii) If the type and scope of operation intended under the lease differs significantly from the type and scope of operation the lessee is authorized by the Authority to conduct;

(iii) If the intended lease is the sole operation of the lessee.

(3) Wet lease-out

An Aruban operator shall not wet lease-out an aeroplane for more than three consecutive months.

(c) Leasing of aeroplanes between Aruban operators, or Aruban operators and JAA operators

(1) Wet lease-out

An Aruban operator providing an aeroplane and complete crew to another Aruban or JAA operator, and retaining all the functions and responsibilities prescribed in Subpart C, shall remain the operator of the aeroplane.

(2) All leases except wet lease-out

(i) Except as provided by sub-paragraph (c) (1) above, an Aruban operator utilizing an aeroplane from, or providing it to, another Aruban or JAA operator, must obtain prior approval for the operation from his respective Authority. Any conditions which are part of this approval must be included in the lease agreement.

(ii) Those elements of lease agreements which are approved by the Authority, other than lease agreements in which an aeroplane and complete crew are involved and no transfer of functions and responsibilities is intended, are all to be regarded, with respect to the leased aeroplane, as variations of the AOC under which the flights will be operated.

(d) Leasing of aeroplanes between an Aruban and any entity other than an Aruban or JAA operator

(1) Dry lease-in

(1) An Aruban operator shall not dry lease-in an aeroplane from an entity other than an Aruban or JAA operator, unless approved by the Authority. Any conditions which are part of this approval must be included in the lease agreement.

(2) An Aruban operator shall ensure that, with regard to aeroplanes that are dry leased-in, any differences from the requirements prescribed in Subparts K, L, and/or JAR-26, are notified to and are acceptable to the Authority.

(2) Wet lease-in

(i) An Aruban operator shall not wet lease-in an aeroplane for more than 3 consecutive months within a 12 months period.

(ii) A JAA or an Aruban operator shall ensure that, with regard to aeroplanes that are wet leased-in:

(A) The safety standards of the lessor with respect to maintenance and operation are equivalent to JAR's;

(B) The lessor is an operator holding an AOC issued by a State, which is a signatory to the Chicago Convention, that has a level of safety oversight acceptable to the Authority;

(C) The aeroplane has a standard Certificate of Airworthiness issued in accordance with ICAO Annex 8. Standard Certificates of Airworthiness issued by a JAA Member State or a State with equivalent standard, acceptable to the authority, other than the State responsible for issuing the AOC, will be accepted when issued in accordance with JAR-21 or equivalent; and

(D) Any Aruban requirement made applicable by the lessee's Authority is complied with.

(3) Dry lease-out

(i) An Aruban operator may dry lease-out an aeroplane for the purpose of commercial air transportation to any operator of a State which is signatory to the Chicago Convention, provided that the following conditions are met:

(A) The Authority has exempted the Aruban operator from the relevant provisions of JAR - OPS Part 1 and, after the foreign regulatory authority has accepted responsibility in writing for surveillance of the maintenance and operation of the aeroplanes, has removed the aeroplane from its AOC; and

(B) The aeroplane is maintained according to an approved maintenance programme.

(4) Wet lease-out

An Aruban operator providing an aeroplane and complete crew to another entity and retaining all the functions and responsibilities prescribed in Subpart C, shall remain the operator of the aeroplane.

AUA–OPS 1.175 General rules for Air Operator Certification

Note 1: Appendix 1 to this paragraph specifies the contents and conditions of the AOC.

Note 2: Appendix 2 to this paragraph specifies the management and organisation requirements.

(a) An operator shall not operate an aeroplane for the purpose of commercial air transportation otherwise than under, and in accordance with, the terms and conditions of an Air Operator Certificate (AOC) and operations specifications.

(b) An applicant for an AOC, or variation of an AOC, shall allow the Authority to examine all safety aspects of the proposed operation.

(c) An applicant for an AOC must:

1. Not hold an AOC issued by another Authority;

2. Have his principal place of business and, if any, his registered office located in Aruba; (See IEM OPS 1.175(c)(2));

3. Have registered the aeroplanes which are to be operated under the AOC in Aruba; and

4. Satisfy the Authority that he is able to conduct safe operations.

(d) Notwithstanding sub-paragraph (c)(3) above, an operator may operate, with the mutual agreement of the Authority issuing the AOC and another Authority, aeroplanes registered on the national register of the second-named Authority.

(e) An operator shall grant the Authority access to his organisation and aeroplanes and shall ensure that, with respect to maintenance, access is granted to any associated subcontracted maintenance organisation, to determine continued compliance with JAR–OPS.

(f) An AOC will be varied, suspended or revoked if the Authority is no longer satisfied that the operator can maintain safe operations.

(g) The operator must satisfy the Authority that;

1. Its organisation and management are suitable and properly matched to the scale and scope of the operation; and

2. Procedures for the supervision of operations have been defined.

(h) The operator must have nominated an accountable manager acceptable to the Authority who has corporate authority for ensuring that all operations and maintenance activities can be financed and carried out to the standard required by the Authority. (See ACJ OPS 1.035)

(i) The operator must have nominated post holders, acceptable to the Authority, who are responsible for the management and supervision of the following areas,

1. Flight operations;

2. The maintenance system;

3. Crew training; and

4. Ground operations. (See ACJ OPS 1.175(i))

(j) A Person may hold more than one of the nominated posts if acceptable to the Authority but, for operators who employ 21 or more full time staff, a minimum of two persons are required to cover the four areas of responsibility. (See ACJ OPS 1.175(j)& (k).)

(k) For operators who employ 20 or less full time staff, one or more of the nominated posts may be filled by the accountable manager if acceptable to the Authority. (See ACJ OPS 1.175(j) & (k).)

(l) The operator must ensure that every flight is conducted in accordance with the provisions of the Operations Manual.

(m) The operator must arrange appropriate ground handling facilities to ensure the safe handling of its flights.

(n) The operator must ensure that its aeroplanes are equipped and its crews are qualified, as required for the area and type of operation.

(o) The operator must comply with the maintenance requirements, in accordance with Subpart M, for all aeroplanes operated under the terms of its AOC.

(p) The operator must provide the Authority with a copy of the Operations Manual, as specified in Subpart P and all amendments or revisions to it.

(q) The operator must maintain operational support facilities at the main operating base, appropriate for the area and type of operation.

(r) The operator shall meet and maintain the requirements established by the States in which the operations are conducted.

(s) The air operator certificate shall authorise the operator to conduct commercial air transport operations in accordance with the operations specifications.

Appendix 2 to AUA-OPS 1.175

The management and organization of an AOC holder

(a) General

(1) An operator must have a sound and effective management structure in order to ensure the safe conduct of air operations. Nominated post holders must have proven competency in civil aviation.

(2) In the context of this appendix, ’competency’ means that an individual must have a technical qualification and managerial experience acceptable to the Authority, as appropriate.

(b) Nominated post holders

(1) A description of the functions and the responsibilities of the nominated post holders, including their names, must be contained in the Operations Manual and the Authority must be given notice in writing of any intended or actual change in appointments or functions.

(2) The operator must make arrangements to ensure continuity of supervision in the absence of nominated post holders.

(3) The operator must satisfy the Authority that the management organization is suitable and properly matched to the operating network and scale of operation.

(4) A person nominated as a post holder by the holder of an AOC must not be nominated as a post holder of any other AOC, unless acceptable to the Authority. Nominated post holders must be contracted to work sufficient hours such that the individual can fulfil the management functions associated with the size and scope of the operator’s business.

(5) More than one of the nominated posts may be filled by one person if acceptable to the Authority.

(6) All Management personnel required by JAR-OPS 1 subpart C shall establish their primary place of residence in Aruba and demonstrate sufficient presence to assume continuity of their responsibilities.

Note: The requirements relating to the appointment of the nominated post holder responsible for the maintenance system in accordance with JAR-OPS 1.175(i)(2) are prescribed in JAR-OPS 1.895.

c) Adequacy and supervision of staff

(1) Crew members

The operator must employ sufficient flight and cabin crew for the planned operation, trained and checked in accordance with Subpart N and Subpart O as appropriate.

(2) Ground staff

(i) The number of ground staff is dependent upon the nature and the scale of operations. Operations and ground handling departments, in particular, must be staffed by trained personnel who have a thorough understanding of their responsibilities within the organization.

(ii) An operator contracting other organizations to provide certain services, retains responsibility for the maintenance of proper standards. In such circumstances, a nominated post holder must be given the task of ensuring that any contractor employed meets the required standard.

(3) Supervision

(i) The numbers of supervisors to be appointed is dependent upon the structure of the operator and the number of staff employed. The duties and responsibilities of these supervisors must be defined, and any flying commitments arranged so that they can discharge their supervisory responsibilities.

(ii) The supervision of all crew members must be exercised by individuals possessing experience and personal qualities sufficient to ensure the attainment of the standards specified in the Operations Manual.

(d) Accommodation facilities

(1) An operator must ensure that working space available at each operating base is sufficient for personnel pertaining to the safety of flight operations. Consideration must be given to the needs of ground staff, those concerned with operational control, the storage and display of essential records, and flight planning by crews.

(2) Office services must be capable, without delay, of distributing operational instructions and other information to all concerned.

(e) Documentation

The operator must make arrangements for the production of manuals, amendments and other documentation.

AUA-OPS 1.180 Issue, variation and continued validity of an AOC

(a) An operator will not be granted an AOC or a variation to an AOC, and that AOC will not remain valid unless:

(1) Aeroplanes operated have a standard Certificate of Airworthiness issued in accordance with the Aruban Airworthiness code;

(2) The maintenance system has been approved by the Authority in accordance with Subpart M; and

(3) The operator has satisfied the Authority that he has the ability to:

(i) Establish and maintain an adequate organization;

(ii) Establish and maintain a quality system in accordance with JAR-OPS 1.035;

(iii) Comply with the required training programmes;

(iv) Comply with the maintenance requirements, consistent with the nature and extent of the operations specified, including the relevant items described in JAR-OPS 1.175 (g) to (o); and

(v) Comply with JAR-OPS 1.175.

(vi) Demonstrate ground handling arrangements consistent with the nature and extent of the operations, acceptable to the Authority.

(4) The operator has at least one aircraft operating under the AOC and under operational control of the operator.

(b) Notwithstanding the provisions of JAR-OPS 1,185(f), the operator must notify the Authority as soon as practicable of any changes to the information submitted in accordance with JAR-OPS 1.185 (a).

(c) If the Authority is not satisfied that the requirements of subparagraph (a) above have been met, the Authority may require the conduct of one or more demonstration flights, operated as if they were commercial air transport flights.

AUA-OPS 1.195 Operational Control (See AMC OPS 1.195)

(a) An operator shall:
1. Establish and maintain a method of exercising operational control approved by the Authority; and
2. Exercise operational control over any flight operated under the terms of his AOC.

(b) Responsibility for operational control shall be only delegated to the pilot-in- command, or if the operator's approved method of control and supervision of flight operation incorporates the use of flight operations officer/flight dispatcher personnel, to the pilot in command and to a flight operations officer/flight dispatcher

(c) If the operator's approved method of control and supervision of flight operation includes the use of flight operations officer/flight dispatcher (in accordance with JAR-OPS 1.180), the flight operations officer/flight dispatcher shall:

1. assist the pilot-in-command in flight preparation and provide the relevant information;

2. assist the pilot-in-command in preparing the operational and ATS flight plans, sign when applicable and file the ATS flight plan with the appropriate ATS unit; and

3. furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

JAR-OPS 1.210 Establishment of procedures

(a) An operator shall establish procedures and instructions, for each aeroplane type, containing ground staff and crew members' duties for all types of operation on the ground and in flight. (See AMC OPS 1.210(a).)

(b) An operator shall establish a check-list system to be used by crew members for all phases of operation of the aeroplane under normal, abnormal and emergency conditions as applicable, to ensure compliance with the operating procedures contained in the Operations Manual and the aeroplane flight manual or other documents associated with the Certificate of Airworthiness and otherwise in the operations manual, are followed. The design and utilization of checklists shall observe human factors principles. (See IEM OPS 1.210 (b).)

(c) An operator shall not require a crewmember to perform any activities during critical phases of the flight other than those required for the safe operation of the aeroplane. (See [JAR-OPS1.192].)

AUA-OPS 1.285 Passenger briefing

An operator shall ensure that:

(a) General.

(1) Passengers are given a verbal briefing about safety matters. Parts or all of the briefing may be provided by an audio-visual presentation.

(2) Passengers are provided with a safety briefing card on which picture type instructions indicate the operation of emergency equipment and exits likely to be used by passengers.

(b) Before take-off

(1) Passengers are briefed on the following items if applicable:

(i) Smoking regulations;

(ii) Back of the seat to be in the upright position and tray table stowed;
(iii) Location of emergency exits;
(iv) Location and use of floor proximity escape path markings;
(v) Stowage of hand baggage;
(vi) Restrictions on the use of portable electronic devices; and
(vii) The location and the contents of the safety briefing card, and,

(2) Passengers receive a demonstration of the following:
(i) The use of safety belts and/or safety harnesses, including how to fasten and unfasten the safety belts and/or safety harnesses;
(ii) The location and use of oxygen equipment if required (JAR-OPS 1.770 and JAR-OPS 1.775 refer). Passengers must also be briefed to extinguish all smoking materials when oxygen is being used; and
(iii) The location and use of life jackets if required (JAR-OPS 1.825 refers).

(c) After take-off

(1) Passengers are reminded of the following if applicable:
(i) Smoking regulations; and
(ii) Use of safety belts and/or safety harnesses.

(d) Before landing

(1) Passengers are reminded of the following if applicable:
(i) Smoking regulations;
(ii) Use of safety belts and/or safety harnesses;
(iii) Back of the seat to be in the upright position and tray table stowed;
(iv) Re-stowage of hand baggage; and
(v) Restrictions on the use of portable electronic devices.

(e) After landing

(1) Passengers are reminded of the following:
(i) Smoking regulations; and

(ii) Use of safety belts and/or safety harnesses.

(f) The operator shall ensure that, during take-off and landing and whenever considered necessary by reason of turbulence or any emergency occurring during flight, all passengers on board an aeroplane shall be secured in their seats by means of the seat belts or harnesses provided.

(g) In an emergency during flight, passengers are instructed in such emergency action as may be appropriate to the circumstances.

AUA-OPS 1.295(c)

(c) An operator must select and specify in the operational and ATS flight plans at least one destination alternate for each IFR flight unless:

(1) Both:

(i) The duration of the planned flight from take-off to landing or, in the event of in-flight re-planning in accordance with JAR-OPS 1.255(d), the remaining flying time to destination does not exceed six hours, and

(ii) Two separate runways [(See JAR-OPS 1.192)] are available and us[ ]able at the destination aerodrome and the appropriate weather reports or forecasts for the destination aerodrome, or any combination thereof, indicate that for the period from one hour before until one hour after the expected time of arrival at [the] destination aerodrome, the ceiling will be at least 2 000 ft or circling height + 500 ft, whichever is greater, and the visibility will be at least 5 km. ; or

(2) The destination aerodrome is isolated.

AUA-OPS 1.297(d)

(d) Planning minima for an ETOPS en-route alternate aerodrome. An operator shall only select an aerodrome as an ETOPS en-route alternate aerodrome when the appropriate weather reports or forecasts, or any combination thereof, indicate that, during a period commencing one hour before and ending one hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed in Table 2 or 3 below, and in accordance with the operator's ETOPS approval. The selected ETOPS en-route alternate aerodrome shall be specified in the operational and air traffic services (ATS) flight plans. An operator shall include in his Operations Manual either Table 2 or Table 3, but not a combination of both, for use in determining the operating minima at the planned ETOPS en-route alternate aerodrome.

AUA - OPS 1.320 Seats, safety belts and harnesses

(a) Crew members

1. During take-off and landing, and whenever deemed necessary by the commander in the interest of safety, each crew member shall be properly secured by all safety belts and harnesses provided;

2. During other phases of the flight each flight crew member on the flight deck shall keep his safety belt fastened while at his station.

(b) Passengers

1. Before take-off and landing, and during taxying, and whenever deemed necessary in the interest of safety, the commander shall ensure that each passenger on board occupies a seat or berth with his safety belt, or harness where provided, properly secured.

2. An operator shall make provision for, and the commander shall ensure that multiple occupancy of aeroplane seats may only be allowed on specifies seats and does not occur other than by one adult and one infant who is properly secured by a supplementary loop belt or other restraint device.

(c) Cockpit observer seat

1. Except as provided in paragraph (3) of this section, each operator shall make available a seat on the flight deck of each aeroplane for occupancy by the Authority while conducting en route inspections. The location and equipment of the seat, with respect to its suitability for use in conducting en route inspections, is determined by the Authority.

2. In each aeroplane that has more than one observer seat, in addition to the seats required for the crew complement for which the aeroplane was certificated, the observer seat selected by the Authority must be made available when complying with paragraph (a) above.

3. For any aeroplane type certificated before December 20, 1995 for not more than 30 passengers that does not have an observers seat on the flight deck, the operator must provide a forward passenger seat with headset or speaker for occupancy by the Authority. The cockpit door, if required, may remain open during such inspections.

AUA-OPS 1.425 Emergency situation

(a) If an emergency situation which endangers the safety of the aeroplane or persons becomes known first to the flight operations officer/flight dispatcher (if the operator's approved method of control and supervision of flight operation includes the use of flight operations officer/flight dispatcher), action by that person in accordance with paragraph (b) below shall include, where necessary, notification to the appropriate authorities of the nature of the situation without delay, and requests for assistance if required.

(b) In the event of an emergency, a flight operations officer/flight dispatcher shall:

1. initiate such procedures as outlined in the operations manual while avoiding taking any action that would conflict with ATC procedures; and

2. convey safety-related information to the pilot-in-command that may be necessary for the safe conduct of the flight, including information related to any amendments to the flight plan that become necessary in the course of the flight.

(c) If an emergency situation which endangers the safety of the aeroplane or persons necessitates the taking of action which involves a violation of local regulations or procedures, the commander shall notify the appropriate local authority without delay. If required by the State in which the incident occurs, the commander shall submit a report on any such violation to the appropriate authority of such State; in that event, the commander shall also submit a copy of it to the Authority. Such reports shall be submitted as soon as possible and normally within ten days.

AUA-OPS 1.475 subpart (f)

(f) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in Annex 16, Volume I, unless otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.

AUA-OPS 1.620 subpart (f)

(f) Mass values for baggage

1. Where the total number of passengers seats available on the aeroplane is 20 or more the standard mass values given in Table 3 are applicable for each piece of checked baggage. For aeroplanes with 19 passenger seats or less, the actual mass of checked baggage, determined by weighing, must be used.

2. For the purpose of Table 3:

(iii) Domestic flights means flights with origin and destination within the borders of Aruba, Curacao or Bonaire;

(iv) Flights within the Caribbean Region means flights, other than Domestic flights, whose origin and destination are within the area specified in Aruba Appendix 1 to JAR-OPS 1.620(f); and

(v) Intercontinental flights, other than flights within the Caribbean region, means flights with origin and destination in different continents.

AUA- Appendix 1 to JAR-OPS 1.620(f)

Definition of the area for flights within the Caribbean region

For the purpose of JAR-OPS 1.620(f), flights within the Caribbean region, other than domestic flights, are flights conducted within the area, bounded by rhumb-lines between the following points

N3000 W07500

N3000 W08500

N0800 W08500

N0400 W06000

N0400 W05900

N0200 W05900

as depicted in Figure I below:



0

Page 1-N-1

AUA-OPS 1.650 sub (q) and (r)

(q) VFR flights which are operated as controlled flights shall be equipped in accordance with JAR-OPS 1.652.

(r) Pressurized aeroplanes newly introduced into service on or after 1 July 1962 and intended to be operated at flight altitudes at which the atmospheric pressure is less than 376 hPa shall be equipped with a device to provide positive warning to the pilot of any dangerous loss of pressurization.

AUA-OPS 1.655 Additional equipment for single pilot operation under IFR

An operator shall not conduct single pilot IFR operations unless approved by the Authority and unless the aeroplane is equipped with an autopilot with at least altitude hold and heading mode.

AUA - OPS 1.660 Altitude alerting system

(a) After 1 April 2002 an operator shall not operate a turbine propeller powered aeroplane with a maximum certificated take-off mass in excess of 5700 kg or having a maximum approved passenger seating configuration of more than 9 seats or a turbojet powered aeroplane unless it is equipped with an altitude alerting system capable of:

(1) Alerting the flight crew upon approaching a pre-selected altitude; and

(2) Alerting the flight crew by at least an aural signal, when deviating from a pre-selected altitude,

(b) Before 1 April 2002 an operator shall not operate a turbine propeller powered aeroplane with a maximum certificated take-off mass in excess of 5700 kg or having a maximum approved passenger seating configuration of more than 169 seats or a turbojet powered aeroplane unless it is equipped with an altitude alerting system capable of:

(1) Alerting the flight crew upon approaching a preselected altitude; and

(2) Alerting the flight crew by at least an aural signal, when deviating from a preselected altitude, except for aeroplanes with a maximum certificated take-off mass of 5700 kg or less having a maximum approved passenger seating configuration of more than 9 and first issued with an individual certificate of airworthiness in a JAA Member State or elsewhere before 1 April 1972 and already registered in a JAA Member State or Aruba on 1 April 1995.

AUA-OPS 1.665(f)

(f) A ground proximity warning system shall provide, unless otherwise specified herein, warnings of the following circumstances:

1. excessive descent rate;

2. excessive terrain closure rate;

3. excessive altitude loss after take-off or go-around;

4. unsafe terrain clearance while not in landing configuration:

a) gear not locked down;

b) flaps not in a landing position; and

5. excessive descent below the instrument glide path.

AUA-OPS 1.668 Airborne Collision Avoidance System
(See IEM OPS 1.668)

(a) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorised to carry more than 19 passengers shall be equipped with an airborne collision avoidance system with a minimum performance level of at least ACAS II.

(b) An airborne collision avoidance system shall operate in accordance with the relevant provisions of ICAO Annex 10, Volume IV.

AUA-OPS 1.700

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AUA-OPS 1.701 Flight recorders (general)

(a) Crash protected flight recorders comprise four systems: a flight data recorder (FDR), a cockpit voice recorder (CVR), an airborne image recorder (AIR) and adata link recorder (DLR). Image and data link information may be recorded on either the CVR or the FDR.

(b) Lightweight flight recorders comprise four systems: an aircraft data recording system (ADRS), a cockpit audio recording system (CARS), an airborne image recording system (AIRS) and a data link recording system (DLRS). Image and data link information may be recorded on either the CARS or the ADRS.

(c) Detailed guidance on flight recorders is contained in Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721.

AUA-OPS 1.705

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AUA-OPS 1.706 Flight data recorders and aircraft data recording systems

(a) Parameters to be recorded are listed in Tables A8-1 and A8-3 of Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721.

(b) Types

1. Types I and IA FDR shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation.

2. Types II and IIA FDRs shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices.

(c) Operation

Airborne image recorders (AIRs) classification is defined in section 4.1 of Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721.

1. All turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less for which a type certificate is first issued on or after 1 January 2016 shall be equipped with:

a) a Type II FDR; or

b) a Class C AIR capable of recording flight path and speed parameters displayed to the pilot(s); or

c) an ADRS capable of recording the essential parameters defined in Table A8-3 of Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721.

2. All aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 1 January 1989 shall be equipped with a Type I FDR.

3. All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 1 January 1989, shall be equipped with a Type II FDR.

4. All turbine-engined aeroplanes, for which the individual certificate of airworthiness was first issued on or after1 January 1987 but before 1 January 1989, with a maximum certificated take-off mass of over 5 700 kg, except those in 6.3.1.2.8, shall be equipped with an FDR which shall record time, altitude, airspeed, normal acceleration and heading.

5. All turbine-engined aeroplanes, for which the individual certificate of airworthiness was first issued on or after1 January 1987 but before 1 January 1989, with a maximum certificated take-off mass of over 27 000 kg that are of types of which the prototype was certificated by the appropriate national authority after 30 September 1969 shall be equipped with a Type II FDR.

6. All turbine-engined aeroplanes, for which the individual certificate of airworthiness was first issued before1 January 1987, with a maximum certificated take-off mass of over 5 700 kg shall be equipped with an FDR which shall record time, altitude, airspeed, normal acceleration and heading.

7. All aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued after 1 January 2005 shall be equipped with a Type IA FDR.

8. All aeroplanes which are required to record normal acceleration, lateral acceleration and longitudinal acceleration for which a type certificate is first issued on or after 1 January 2016 and which are required to be fitted with an FDR shall record those parameters at a maximum sampling and recording interval of 0.0625 seconds.

9. All aeroplanes which are required to record pilot input and/or control surface position of primary controls (pitch, roll, yaw) for which a type certificate is first issued on or after 1 January 2016 and which are required to be fitted with an FDR shall record those parameters at a maximum sampling and recording interval of 0.125 seconds.

(d) Discontinuation

1. The use of engraving metal foil FDRs shall be discontinued.

2. The use of analogue FDRs using frequency modulation (FM) shall be discontinued by 1 January 2012.

3. The use of photographic film FDRs shall be discontinued.

4. The use of magnetic tape FDRs shall be discontinued by 1 January 2016.

(e) Duration

All FDRs shall be capable of retaining the information recorded during at least the last 25 hours of their operation, except for the Type IIA FDR which shall be capable of retaining the information recorded during at least the last 30 minutes of its operation.

AUA-OPS 1.710

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AUA-OPS 1.711 Cockpit voice recorders and cockpit audio recording systems

(a) Operation

1. All turbine-engined aeroplanes for which a type certificate is first issued on or after 1 January 2016 and required to be operated by more than one pilot shall be equipped with either a CVR or a CARS.

2. All aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued on or after 1 January 2003, shall be equipped with a CVR capable of retaining the information recorded during at least the last two hours of its operation.

3. All aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued on or after 1 January 1987 shall be equipped with a CVR.

4. All turbine-engined aeroplanes, for which the individual certificate of airworthiness was first issued before1 January 1987, with a maximum certificated take-off mass of over 27 000 kg that are of types of which the prototype was certificated by the appropriate national authority after 30 September 1969 shall be equipped with a CVR.

(b) Discontinuation

The use of magnetic tape and wire CVRs shall be discontinued by 1 January 2016.

(c) Duration

1. All CVRs shall be capable of retaining the information recorded during at least the last 30 minutes of their operation.

2. From 1 January 2016, all CVRs shall be capable of retaining the information recorded during at least the last two hours of their operation.

AUA-OPS 1.715

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AUA-OPS 1.716 Data link recorders

(a) Applicability

1. All aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2016,which utilize any of the data link communications applications listed in 5.1.2 of Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721 and are required to carry a CVR, shall record on a flight recorder the data link communications messages.

2. All aeroplanes which are modified on or after 1 January 2016 to install and utilize any of the data link communications applications listed in 5.1.2 of Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721 and are required to carry a CVR shall record on a flight recorder the data link communications messages.

(b) Duration

The minimum recording duration shall be equal to the duration of the CVR.

(c) Correlation

Data link recording shall be able to be correlated to the recorded cockpit audio.

AUA-OPS 1.720

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AUA-OPS 1.721 Flight recorders — general

(a) Construction and installation

Flight recorders shall be constructed, located and installed so as to provide maximum practical protection for the recordings in order that the recorded information may be preserved, recovered and transcribed. Flight recorders shall meet the prescribed crashworthiness and fire protection specifications.

(b) Operation

1. Flight recorders shall not be switched off during flight time.

2. To preserve flight recorder records, flight recorders shall be deactivated upon completion of flight time following an accident or incident. The flight recorders shall not be reactivated before their disposition as determined in accordance with ICAO Annex 13.

(c) Continued serviceability

Operational checks and evaluations of recordings from the flight recorder systems shall be conducted to ensure the continued serviceability of the recorders.

(d) Procedures for the inspections of the flight recorder systems are given in Appendix of AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721.

AUA-OPS 1.725

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AUA-OPS 1.727 Combination recorders

All aeroplanes of a maximum certificated take-off mass of over 15 000 kg for which the type certificate is first issued on or after 1 January 2016 and which are required to be equipped with both a CVR and an FDR, shall be equipped with two combination recorders (FDR/CVR). One recorder shall be located as close to the cockpit as practicable and the other recorder located as far aft as practicable.

APPENDIX to AUA-OPS 1.701, 1.706, 1.711, 1.716 and 1.721

The material in this Appendix concerns flight recorders intended for installation in aeroplanes engaged in international air navigation. Crashed protected flight recorders comprise four systems: a flight data recorder (FDR), a cockpit voice recorder (CVR), an airborne image recorder (AIR) and a data link recorder (DLR). Lightweight flight recorders comprise four systems, an aircraft data recording system (ADRS), a cockpit audio recording system (CARS), an airborne image recording system (AIRS) and a data link recording system (DLRS).

1. General requirements

1.1 The flight recorder systems containers shall:

a) be painted a distinctive orange or yellow colour;

b) carry reflective material to facilitate their location; and

c) have securely attached an automatically activated underwater locating device.

1.2 The flight recorder systems shall be installed so that:

a) the probability of damage to the recordings is minimized;

b) they receive electrical power from a bus that provides the maximum reliability for operation of the flight recorder systems without jeopardizing service to essential or emergency loads;

c) there is an aural or visual means for pre-flight checking that the flight recorder systems are operating properly; and

d) if the flight recorder systems have a bulk erasure device, the installation shall be designed to prevent operation of the device during flight time or crash impact.

1.3 The flight recorder systems, when tested by methods approved by the appropriate certificating authority, shall be demonstrated to be suitable for the environmental extremes over which they are designed to operate.

1.4 Means shall be provided for an accurate time correlation between the flight recorder systems recordings.

1.5 The manufacturer shall provide the appropriate certificating authority with the following information in respect of the flight recording systems:

a) manufacturer's operating instructions, equipment limitations and installation procedures;

b) parameter origin or source and equations which relate counts to units of measurement; and

c) manufacturer's test reports.

2. Flight Data Recorder (FDR)

2.1 The flight data recorder shall start to record prior to the aeroplane moving under its own power and record continuously until the termination of the flight when the aeroplane is no longer capable of moving under its own power.

2.2 Parameters to be recorded

2.2.1 Flight data recorders shall be classified as Type I, Type IA, Type II and Type IIA depending upon the number of parameters to be recorded and the duration required for retention of the recorded information.

2.2.2 The parameters that satisfy the requirements for FDRs are listed in the paragraphs below. The number of parameters to be recorded shall depend on aeroplane complexity. The parameters without an asterisk (*) are mandatory parameters which shall be recorded regardless of aeroplane complexity. In addition, the parameters designated by an asterisk (*) shall be recorded if an information data source for the parameter is used by aeroplane systems or the flight crew to operate the aeroplane. However, other parameters may be substituted with due regard to the aeroplane type and the characteristics of the recording equipment.

2.2.2.1 The following parameters shall satisfy the requirements for flight path and speed:

— Pressure altitude

— Indicated airspeed or calibrated airspeed

— Air-ground status and each landing gear air-ground sensor when practicable

— Total or outside air temperature

— Heading (primary flight crew reference)

— Normal acceleration

— Lateral acceleration

— Longitudinal acceleration (body axis)

— Time or relative time count

— Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

— Groundspeed*

— Radio altitude*

2.2.2.2 The following parameters shall satisfy the requirements for attitude:

— Pitch attitude

— Roll attitude

— Yaw or sideslip angle*

— Angle of attack*

2.2.2.3 The following parameters shall satisfy the requirements for engine power:

— Engine thrust/power: propulsive thrust/power on each engine, cockpit thrust/power lever position

— Thrust reverse status*

— Engine thrust command*

— Engine thrust target*

— Engine bleed valve position*

— Additional engine parameters*: EPR, N1, indicated vibration level, N2, EGT, TLA, fuel flow, fuel cut-off lever position, N3

2.2.2.4 The following parameters shall satisfy the requirements for configuration:

— Pitch trim surface position

— Flaps*: trailing edge flap position, cockpit control selection

— Slats*: leading edge flap (slat) position, cockpit control selection

— Landing gear*: landing gear, gear selector position

— Yaw trim surface position*

— Roll trim surface position*

— Cockpit trim control input position pitch*

— Cockpit trim control input position roll*

— Cockpit trim control input position yaw*

— Ground spoiler and speed brake*: Ground spoiler position, ground spoiler selection, speed brake position, speed brake selection

— De-icing and/or anti-icing systems selection*

— Hydraulic pressure (each system)*

— Fuel quantity in CG trim tank *

— AC electrical bus status*

— DC electrical bus status*

— APU bleed valve position*

— Computed centre of gravity*

2.2.2.5 The following parameters shall satisfy the requirements for operation:

— Warnings

— Primary flight control surface and primary flight control pilot input: pitch axis, roll axis, yaw axis

— Marker beacon passage

— Each navigation receiver frequency selection

— Manual radio transmission keying and CVR/FDR synchronization reference

— Autopilot/autothrottle/AFCS mode and engagement status*

— Selected barometric setting*: pilot, first officer

— Selected altitude (all pilot selectable modes of operation)*

— Selected speed (all pilot selectable modes of operation)*

— Selected Mach (all pilot selectable modes of operation)*

— Selected vertical speed (all pilot selectable modes of operation)*

— Selected heading (all pilot selectable modes of operation)*

— Selected flight path (all pilot selectable modes of operation)*: course/DSTRK, path angle

— Selected decision height*

— EFIS display format*: pilot, first officer

— Multi-function/engine/alerts display format*

— GPWS/TAWS/GCAS status*: selection of terrain display mode including pop-up display status, terrain alerts, both cautions and warnings, and advisories, on/off switch position

— Low pressure warning*: hydraulic pressure, pneumatic pressure

— Computer failure*

— Loss of cabin pressure*

— TCAS/ACAS (traffic alert and collision avoidance system/airborne collision avoidance system)*

— Ice detection*

— Engine warning each engine vibration*

— Engine warning each engine over temperature*

— Engine warning each engine oil pressure low*

— Engine warning each engine over speed*

— Wind shear warning*

— Operational stall protection, stick shaker and pusher activation*

— All cockpit flight control input forces*: control wheel, control column, rudder pedal cockpit input forces

— Vertical deviation*: ILS glide path, MLS elevation, GNSS approach path

— Horizontal deviation*: ILS localizer, MLS azimuth, GNSS approach path

— DME 1 and 2 distances*

— Primary navigation system reference*: GNSS, INS, VOR/DME, MLS, Loran C, ILS

— Brakes*: left and right brake pressure, left and right brake pedal position

— Date*

— Event marker*

— Head up display in use*

— Para visual display on*

2.2.2.6 *Type IA FDR*. This FDR shall be capable of recording, as appropriate to the aeroplane, at least the 78 parameters in Table A8-1.

2.2.2.7 *Type I FDR*. This FDR shall be capable of recording, as appropriate to the aeroplane, at least the first 32 parameters in Table A8-1.

2.2.2.8 *Types II and IIA FDRs.* These FDRs shall be capable of recording, as appropriate to the aeroplane, at least the first16 parameters in Table A8-1.

2.2.2.9 The parameters that satisfy the requirements for flight path and speed as displayed to the pilot(s) are listed below.

The parameters without an (*) are mandatory parameters which shall be recorded. In addition, the parameters designated by an

(*) shall be recorded if an information source for the parameter is displayed to the pilot and is practicable to record:

— Pressure altitude

— Indicated airspeed or calibrated airspeed

— Heading (primary flight crew reference)

— Pitch attitude

— Roll attitude

— Engine thrust/power

— Landing-gear status*

— Total or outside air temperature*

— Time*

— Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

— Radio altitude*

2.3 Additional information

2.3.1 A Type IIA FDR, in addition to a 30-minute recording duration, shall retain sufficient information from the preceding take-off for calibration purposes.

2.3.2 The measurement range, recording interval and accuracy of parameters on installed equipment shall be verified by methods approved by the appropriate certificating authority.

2.3.3 Documentation concerning parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information shall be maintained by the operator. The documentation needs to be sufficient to ensure that accident investigation authorities have the necessary information to read out the data in engineering units.

3. Cockpit Voice Recorder (CVR) and Cockpit Audio Recording System (CARS)

3.1 Signals to be recorded

The CVR and CARS shall start to record prior to the aeroplane moving under its own power and record continuously until the termination of the flight when the aeroplane is no longer capable of moving under its own power. In addition,

depending on the availability of electrical power, the CVR and CARS shall start to record as early as possible during the cockpit checks prior to engine start at the beginning of the flight until the cockpit checks immediately following engine shutdown at the end of the flight.

3.1.1 The CVR shall record on four separate channels, or more, at least the following:

a) voice communication transmitted from or received in the aeroplane by radio;

b) aural environment on the flight deck;

c) voice communication of flight crew members on the flight deck using the aeroplane's interphone system, if installed;

d) voice or audio signals identifying navigation or approach aids introduced in the headset or speaker; and

e) voice communication of flight crew members using the passenger address system, if installed

3.1.2 The CARS shall record on two separate channels, or more, at least the following:

a) voice communication transmitted from or received in the aeroplane by radio;

b) aural environment on the flight deck; and

c) voice communication of flight crew members on the flight deck using the aeroplane's interphone system, if installed.

3.1.3 The CVR shall be capable of recording on at least four channels simultaneously. On a tape-based CVR, to ensure accurate time correlation between channels, the CVR is to record in an in-line format. If a bi-directional configuration is used,

the in-line format and channel allocation shall be retained in both directions.

3.1.4 The preferred channel allocation shall be as follows:

Channel 1 — co-pilot headphones and live boom microphone

Channel 2 — pilot headphones and live boom microphone

Channel 3 — area microphone

Channel 4 — time reference plus the third and fourth crew members' headphone and live microphone, if applicable.

4. Airborne image recorder (AIR)

4.1 Classes

4.1.1 A Class A AIR captures the general cockpit area in order to provide data supplemental to conventional flight recorders.

4.1.2 A Class B AIR captures data link message displays.

4.1.3 A Class C AIR captures instruments and control panels.

4.2 Operation

The AIR must start to record prior to the aeroplane moving under its own power and record continuously until the termination of the flight when the aeroplane is no longer capable of moving under its own power. In addition, depending on the availability of electrical power, the AIR must start to record as early as possible during the cockpit checks prior to engine start at the beginning of the flight until the cockpit checks immediately following engine shutdown at the end of the flight.

5. Data link recorder (DLR)

5.1 Applications to be recorded

5.1.1 Where the aircraft flight path is authorized or controlled through the use of data link messages, all data link messages, both uplinks (to the aircraft) and downlinks (from the aircraft), shall be recorded on the aircraft. As far as practicable, the time the messages were displayed to the flight crew and the time of the responses shall be recorded.

5.1.2 Messages applying to the applications listed below shall be recorded. Applications without the asterisk (*) are mandatory applications which shall be recorded regardless of the system complexity. Applications with an (*) shall be recorded only as far as is practicable given the architecture of the system.

— Data link initiation capability

— Controller–pilot data link communications

— Data link – flight information services

— Automatic dependent surveillance – contract

— Automatic dependent surveillance – broadcast*

— Aeronautical operational control*.

Descriptions of the applications are contained in Table A8-2.

6. Aircraft data recording systems (ADRS)

6.1 Parameters to be recorded

ADRS shall be capable of recording, as appropriate to the aeroplane, at least the essential (E) parameters in Table A8-3.

6.2 Additional information

6.2.1 The measurement range, recording interval and accuracy of parameters on installed equipment is usually verified by methods approved by the appropriate certificating authority.

6.2.2 Documentation concerning parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information shall be maintained by the operator. The documentation needs to be sufficient to ensure that accident investigation authorities have the necessary information to read out the data in engineering units.

7. Inspections of flight recorder systems

7.1 Prior to the first flight of the day, the built-in test features for the flight recorders and flight data acquisition unit (FDAU), when installed, shall be monitored by manual and/or automatic checks.

7.2 Annual inspections shall be carried out as follows:

a) an analysis of the recorded data from the flight recorders shall ensure that the recorder operates correctly for the nominal duration of the recording;

b) the analysis of the FDR shall evaluate the quality of the recorded data to determine if the bit error rate (including those errors introduced by recorder, the acquisition unit, the source of the data on the aeroplane and by the tools used to extract the data from the recorder) is within acceptable limits and to determine the nature and distribution of the errors;

c) a complete flight from the FDR shall be examined in engineering units to evaluate the validity of all recorded parameters. Particular attention shall be given to parameters from sensors dedicated to the FDR. Parameters taken from the aircraft's electrical bus system need not be checked if their serviceability can be detected by other aircraft systems;

d) the readout facility shall have the necessary software to accurately convert the recorded values to engineering units and to determine the status of discrete signals;

e) an annual examination of the recorded signal on the CVR shall be carried out by replay of the CVR recording. While installed in the aircraft, the CVR shall record test signals from each aircraft source and from relevant external sources to ensure that all required signals meet intelligibility standards;

f) where practicable, during the annual examination, a sample of in-flight recordings of the CVR shall be examined for evidence that the intelligibility of the signal is acceptable; and

g) an annual examination of the recorded images on the AIR shall be carried out by replay of the AIR recording. While installed in the aircraft, the AIR shall record test images from each aircraft source and from relevant external sources to ensure that all required images meet recording quality standards.

7.3 Flight recorder systems shall be considered unserviceable if there is a significant period of poor quality data, unintelligible signals, or if one or more of the mandatory parameters is not recorded correctly.

7.4 A report of the annual inspection shall be made available on request to regulatory authorities for monitoring purposes.

7.5 Calibration of the FDR system:

a) for those parameters which have sensors dedicated only to the FDR and are not checked by other means, recalibration shall be carried out at least every five years or in accordance with the recommendations of the sensor manufacturer to determine any discrepancies in the engineering conversion routines for the mandatory parameters and to ensure that parameters are being recorded within the calibration tolerances; and

b) when the parameters of altitude and airspeed are provided by sensors that are dedicated to the FDR system, there shall be a recalibration performed as recommended by the sensor manufacturer, or at least every two years.

Table A8-1-A. Parameter Guidance for Crash Protected Flight Data Recorders (Type I, IA & II FDR)

Serial number	**Parameter**	**Measurement Range**	**Maximum sampling and recording interval**	**Accuracy limits (sensor input compared to FDR read-out)**	**Recording resolution**
1	Time (UTC when available, otherwise relative time count or GPS time sync)	24 hours	4	±0.125% per hour	1 second
2	Pressure-altitude	–300 m (–1 000 ft) to maximum certificated altitude of aircraft +1 500 m (+5 000 ft)	1	±30 m to ±200 m (±100 ft to ±700 ft)	1.5 m (5 ft)
3	Indicated airspeed or calibrated airspeed	95 km/h (50 kt) to max V_{So} *(Note 1)* V_{So} to 1.2 V_D *(Note 2)*	1	±5% ±3%	1 kt (0.5 kt recommended)
4	Heading (primary flight crew reference)	360°	1	±2°	0.5°
5	Normal acceleration (*Note 3*)	–3 g to +6 g	0.125	±1% of maximum range excluding datum error of ±5%	0.004 g
6	Pitch attitude	±75° or usable range whichever is greater	0.25	±2°	0.5°
7	Roll attitude	±180°	0.25	±2°	0.5°
8	Radio transmission keying	On-off (one discrete)	1		
9	Power on each engine *(Note 4)*	Full range	1 (per engine)	±2%	0.2% of full range or the resolution required to operate the aircraft
10	Trailing edge flap and cockpit control selection	Full range or each discrete position	2	±5% or as pilot's indicator	0.5% of full range or the resolution required to operate the aircraft
11	Leading edge flap and cockpit control selection	Full range or each discrete position	2	±5% or as pilot's Indicator	0.5% of full range or the resolution required to operate the aircraft

12	Thrust reverser position	Stowed, in transit, and reverse	1 (per engine)		
13	Ground spoiler/speed brake selection (selection and position)	Full range or each discrete position	1	±2% unless higher accuracy uniquely required	0.2% of full range
14	Outside air temperature	Sensor range	2	±2°C	0.3°C
15	Autopilot/auto throttle/AFCS mode and engagement status	A suitable combination of discrete	1		
16	Longitudinal acceleration *(Note 3)*	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g

Table A8-1-B. Parameter Guidance for Crash Protected Flight Data Recorders (Type I & IA FDR)					
Serial number	**Parameter**	**Measurement Range**	**Max. sampling and recording interval**	**Accuracy limits (sensor input compared to FDR read-out)**	**Recording resolution**
17	Lateral acceleration (*Note 3*)	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g
18	Pilot input and/or control surface position-primary controls (pitch, roll, yaw) *(Note 5) (Note 6)*	Full range	0.25	±2° unless higher accuracy uniquely required	0.2% of full range or as installed
19	Pitch trim position	Full range	1	±3% unless higher accuracy uniquely required	0.3% of full range or as installed
20*	Radio	altitude –6 m to 750 m (–20 ft to 2 500 ft)	1	±0.6 m (±2 ft) or ±3% whichever is greater below 150 m (500 ft) and ±5% above 150 m (500 ft)	0.3 m (1 ft) below 150 m (500 ft) 0.3 m (1 ft) + 0.5% of full range above 150 m (500 ft)
21*	Vertical beam deviation (ILS/GPS/GLS glide path, MLS elevation, IRNAV/IAN vertical deviation)	Signal range	1	±3%	0.3% of full range
22*	Horizontal beam deviation (ILS/GPS/GLS localizer, MLS azimuth, IRNAV/IAN lateral deviation)	Signal range	1	±3%	0.3% of full range
23	Marker beacon passage	Discrete	1		
24	Master warning	Discrete	1		
25	Each NAV receiver frequency selection *(Note 7)*	Full range	4	As installed	

26*	DME 1 and 2 distance (includes Distance to runway threshold (GLS) and Distance to missed approach point (IRNAV/IAN)) *(Notes 7 and 8)*	0 – 370 km (0 – 200 NM)	4	As installed	1 852 m (1 NM)
27	Air/ground status	Discrete	1		
28*	GPWS/TAWS/GCAS status (selection of terrain display mode including pop-up display status) and (terrain alerts, both cautions and warnings, and advisories) and (on/off switch position)	Discrete	1		
29*	Angle of attack	Full range	0.5	As installed	0.3 % of full range
30*	Hydraulics, each system (low pressure)	Discrete	2		0.5% of full range
31*	Navigation data (latitude/longitude, ground speed and drift angle) *(Note 9)*	As installed	1	As installed	
32*	Landing gear and gear selector position	Discrete	4	As installed	

Table A8-1-C. Parameter Guidance for Crash Protected Flight Data Recorders (Type IA FDR)					
Serial number	**Parameter**	**Measurement Range**	**Max. sampling and recording interval**	**Accuracy limits (sensor input compared to FDR read-out)**	**Recording resolution**
33*	Groundspeed	As installed	1	Data should be obtained from the most accurate system	1 kt
34	Brakes (left and right brake pressure, left and right brake pedal position)	(Maximum metered brake range, discretes or full range)	1	±5%	2% of full range
35*	Additional engine parameters (EPR, N1, indicated vibration level, N2, EGT, fuel flow, fuel cut-off lever position, N3)	As installed	Each engine each second	As installed	2% of full range
36*	TCAS/ACAS (traffic alert and collision avoidance system)	Discretes	1	As installed	
37*	Windshear warning	Discrete	1	As installed	
38*	Selected barometric setting (pilot, co-pilot)	As installed	64	As installed	0.1 mb (0.01 in-Hg)
39*	Selected altitude (all pilot selectable modes of operation)	As installed	1	As installed	Sufficient to determine crew selection
40*	Selected speed (all pilot selectable modes of	As installed	1	As installed	Sufficient to determine crew

	operation)				selection
41*	Selected Mach (all pilot selectable modes of operation)	As installed	1	As installed	Sufficient to determine crew selection
42*	Selected vertical speed (all pilot selectable modes of operation)	As installed	1	As installed	Sufficient to determine crew selection
43*	Selected heading (all pilot selectable modes of operation)	As installed	1	As installed	Sufficient to determine crew selection
44*	Selected flight path (all pilot selectable modes of operation) (course/DSTRK, path angle, final approach path (IRNAV/IAN))		1	As installed	
45*	Selected Decision Height	As installed	64	As installed	Sufficient to determine crew selection
46*	EFIS display format (pilot, co-pilot)	Discrete(s)	4	As installed	
47*	Multi-function/engine/alerts display format	Discrete(s)	4	As installed	
48*	AC electrical bus status	Discrete(s)	4	As installed	
49*	DC electrical bus status	Discrete(s)	4	As installed	
50*	Engine bleed valve position	Discrete(s)	4	As installed	
51*	APU bleed valve position	Discrete(s)	4	As installed	
52*	Computer failure	Discrete(s)	4	As installed	
53*	Engine thrust command	As installed	2	As installed	
54*	Engine thrust target	As installed	4	As installed	2% of full range
55*	Computed centre of gravity	As installed	64	As installed	1% of full range
56*	Fuel quantity in CG trim tank	As installed	64	As installed	1% of full range
57*	Head up display in use	As installed	4	As installed	
58*	Para visual display on/off	As installed	1	As installed	
59*	Operational stall protection, stick shaker and pusher activation	As installed	1	As installed	
60*	Primary navigation system reference (GNSS, INS, VOR/DME, MLS, Loran C, localizer glideslope)	As installed	4	As installed	
61*	Ice detection	As installed	4	As installed	
62*	Engine warning each engine vibration	As installed	1	As installed	
63*	Engine warning each engine over temperature	As installed	1	As installed	
64*	Engine warning each engine oil pressure low	As installed	1	As installed	
65*	Engine warning each engine over speed	As installed	1	As installed	
66*	Yaw Trim Surface Position	Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range

67*	Roll Trim Surface Position	Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range
68*	Yaw or sideslip angle	Full range	1	±5%	0.5°
69*	De-icing and/or anti-icing systems selection	Discrete(s)	4		
70*	Hydraulic pressure (each system)	Full range	2	±5%	100 psi
71*	Loss of cabin pressure	Discrete	1		
72*	Cockpit trim control input position, Pitch	Full range	1	±5%	0.2% of full range or as installed
73*	Cockpit trim control input position, Roll	Full range	1	±5%	0.2% of full range or as installed
74*	Cockpit trim control input position, Yaw	Full range	1	±5%	0.2% of full range or as installed
75*	All cockpit flight control input forces (control wheel, control column, rudder pedal)	Full range (±311 N (±70 lbf), ± 378 N (±85 lbf), ± 734 N (±165 lbf))	1	±5%	0.2% of full range or as installed
76*	Event marker	Discrete	1		
77*	Date	365 days	64		
78*	ANP or EPE or EPU	As installed	4	As installed	

Notes.—
1. VSo stalling speed or minimum steady flight speed in the landing configuration is in Section Abbreviations and Symbols".
2. VD design diving speed.
3. Refer to AUA-OPS 1.706(c)(7) for increased recording requirements.
4. Record sufficient inputs to determine power.
5. For aeroplanes with control systems in which movement of a control surface will back drive the pilot's control, ''or'' applies. For aeroplanes with control systems in which movement of a control surface will not back drive the pilot's control, ''and'' applies. In aeroplanes with split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately.
6. Refer to AUA-OPS 1.706(c)(8) for increased recording requirements.
7. If signal available in digital form.
8. Recording of latitude and longitude from INS or other navigation system is a preferred alternative.
9. If signals readily available.

If further recording capacity is available, recording of the following additional information should be considered:

a) operational information from electronic display systems, such as electronic flight instrument systems (EFIS), electronic centralized aircraft monitor (ECAM) and engine indication and crew alerting system (EICAS). Use the following order of priority:

1) parameters selected by the flight crew relating to the desired flight path, e.g. barometric pressure setting, selected altitude, selected airspeed, decision height, and autoflight system engagement and mode indications if not recorded from another source;

2) display system selection/status, e.g. SECTOR, PLAN, ROSE, NAV, WXR, COMPOSITE, COPY, ETC.;

3) warnings and alerts;

4) the identity of displayed pages for emergency procedures and checklists; and

b) retardation information including brake application for use in the investigation of landing overruns and rejected take-offs.

Table A8-2. Description of Applications for Data Link Recorders			
Item No.	Application type	Application description	Recording content
1	Data link Initiation	This includes any applications used to logon to or initiate data link service. In FANS-1/A and ATN, these are ATS Facilities Notification (AFN) and Context Management (CM) respectively.	C
2	Controller/Pilot Communication	This includes any application used to exchange requests, clearances, instructions and reports between the flight crew and controllers on the ground. In FANS-1/A and ATN, this includes the CPDLC application. It also includes applications used for the exchange of oceanic (OCL) and departure clearances (DCL) as well as data link delivery of taxi clearances.	C
3	Addressed Surveillance	This includes any surveillance application in which the ground sets up contracts for delivery of surveillance data. In FANS-1/A and ATN, this includes the Automatic Dependent Surveillance (ADS-C) application. Where parametric data are reported within the message they shall be recorded unless data from the same source are recorded on the FDR.	C
4	Flight Information	This includes any service used for delivery of flight information to specific aircraft. This includes, for example, D-METAR, D-ATIS, D-NOTAM and other textual data link services.	C
5	Aircraft Broadcast Surveillance	This includes Elementary and Enhanced Surveillance Systems, as well as ADS-B output data. Where parametric data sent by the aeroplane are reported within the message they shall be recorded unless data from the same source are recorded on the FDR.	M *
6	Aeronautical Operational Control Data	This includes any application transmitting or receiving data used for AOC purposes (per the ICAO definition of AOC).	M *

Key:
C: Complete contents recorded.
M: Information that enables correlation to any associated records stored separately from the aeroplane.
*: Applications to be recorded only as far as is practicable given the architecture of the system.

Table A8-3. Parameter Guidance for Aircraft Data recording Systems							
No.	Parameter name	Parameter category	Minimum recording range	Maximum recording interval in seconds	Minimum recording accuracy	Minimum recording resolution	Remarks
1	Heading (Magnetic or True)	R*	±180 degrees	1	±2 degrees	0.5 degree	* If not available, record rates
2	Pitch attitude	E*	±90 degrees	0.25	±2 degrees	0.5 degree	* If not available, record rates
3	Roll attitude	E*	±180 degrees	0.25	±2 degrees	0.5 degree	*If not available, record rates
4	Yaw rate	E*	±300 degrees/s	0. 25	±1% + drift of 360°/hr	2 degree/s	* Essential if no heading available
5	Pitch rate	E*	±300 degrees/s	0.25	±1% + drift of 360°/hr	2 degree/s	* Essential if no pitch attitude available
6	Roll rate	E*	±300 degrees/s	0.25	±1% + drift of 360°/hr	2 degree/s	* Essential if no roll attitude available

7	Positioning system: latitude/longitude	E	Latitude:±90 degrees Longitude:±180 degrees	2 (1 if available)	As installed (0.00015 degree recommended)	0.00005 degree	
8	Positioning system estimated error	E*	Available range	2 (1 if available)	As installed	As installed	* If available
9	Positioning system : altitude	E	–300 m (–1 000 ft) to maximum certificated altitude of aeroplane +1 500 m (5 000 ft)	2 (1 if available)	As installed (±15 m (±50 ft) re-commended)	1.5 m (5 ft)	
10	Positioning system : time*	E	24 hours	1	±0.5 second	0.1 second	* UTC time preferred where available.
11	Positioning system : ground speed	E	0–1 000 kt	2 (1 if available)	As installed (±5 kt recommended)	1 kt	
12	Positioning system : channel	E	0–360 degrees	2 (1 if available)	As installed (± 2 degrees recommended)	0.5 degrees	
13	Normal acceleration	E	–3 g to + 6 g (*)	0.25 (0.125 if available)	As installed (± 0.09 g excluding a datum error of ±0.45 g recommended)	0.004 g	
14	Longitudinal acceleration	E	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	
15	Lateral acceleration	E	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	
16	External static pressure (or pressure altitude)	R	34.4 mb(3.44 in-Hg) to 310.2 b(31.02 in-Hg) or available sensor range	1	As installed (±1 mb (0.1 in-Hg) or ±30 m (±100 ft) to ±210 m (±700 ft) re-commended)	0.1 mb (0.01 in-Hg) or 1.5 m (5 ft)	
17	Outside air temperature (or total air temperature)	R	–50° to +90°C or available sensor range	2	As installed (±2°C re-commended)	1°C	
18	Indicated air speed	R	As the in-stalled pilot display mea-suring system or available sensor range	1	As installed (±3 % recommended)	1 kt (0.5 kt re-commended)	

19	Engine RPM	R	Full range including overspeed condition	Each engine each second	As installed	0.2% of full range	
20	Engine oil pressure	R	Full range	Each engine each second	As installed (5% of full range re-commended)	2% of full range	
21	Engine oil temperature	R	Full range	Each engine each second	As installed (5% of full range re-commended)	2% of full range	
22	Fuel flow or pressure	R	Full range	Each engine each second	As installed	2% of full range	
23	Manifold pressure	R	Full range	Each engine each second	As installed	0.2% of full range	
24	Engine thrust/power/torque parameters required to determine propulsive thrust/power*	R	Full range	Each engine each second	As installed	0.1% of full range	* Sufficient parameters e.g. EPR/N1 or torque/Np as appropriate to the particular engine shall be recorded to determine power in both normal and reverse thrust. A margin for possible overspeed should be provided.
25	Engine gas generator speed (Ng)	R	0-150%	Each engine each second	As installed	0.2% of full range	
26	Free power turbine speed (Nf)	R	0-150%	Each engine each second	As installed	0.2% of full range	
27	Coolant temperature	R	Full range	1	As installed (±5°C re-commended)	1 degree Celsius	
28	Main voltage	R	Full range	Each engine each second	As installed	1 Volt	
29	Cylinder head temperature	R	Full range	Each cylinder each second	As installed	2% of full range	
30	Flaps position	R	Full range or each discrete position	2	As installed	0.5 degree	
31	31 Primary flight control surface position	R	Full range	0.25	As installed	0.2 % of full range	
32	Fuel quantity	R	Full range	4	As installed	1% of full range	

33	Exhaust gas temperature	R	Full range	Each engine each second	As installed	2% of full range	
34	Emergency voltage	R	Full range	Each engine each second	As installed	1 Volt	
35	Trim surface position	R	Full range or each discrete position	1	As installed	0.3% of full range	
36	Landing gear position	R	Each discrete position*	Each gear every two seconds	As installed		* Where available, record up-and locked and down-and-locked position
37	Novel/unique aircraft features	R	As required	As required	As required	As required	

Key:
E: Essential parameters
R: Recommended parameters

AUA-OPS 1.730(a)(4)

4. Except as provided in sub-paragraph (b) below, a safety belt with shoulder harness for each flight crew seat and for any seat alongside a pilot's seat incorporating a device which will automatically restrain the occupant's torso in the event of rapid deceleration;

Note 1: The safety harness for each pilot seat should incorporate a device toprevent a suddenly incapacitated pilot from interfering with the flight controls.

Note 2: Safety harness includes shoulder straps and a seat belt which may be used independently.

AUA-OPS 1.772 Safeguarding of Cabin Crew and Passengers during a Loss of Pressurisation

(a) Cabin crew shall be safeguarded so as to ensure reasonable probability of their retaining consciousness during any emergency descent which may be necessary in the event of loss of pressurisation and, in addition, they should have such means of protection as will enable them to administer first aid to passengers during stabilized flight following the emergency.

(b) Passengers shall be safeguarded by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia in the event of loss of pressurisation.

Note: It is not envisaged that cabin crew will always be able to provide assistance to passengers during emergency descent procedures which may be required in the event of loss of pressurisation.

AUA-OPS 1.790 (g)

(g) Any agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels, paper or waste in an aeroplane for which the individual certificate of airworthiness is first issued on or after 31 December 2011 and any extinguishing agent used in a portable fire extinguisher in an aeroplane for which the individual certificate of airworthiness is first issued on or after 31 December 2016 shall:

(1) meet the applicable minimum performance requirements of the State of Registry; and

(2) not be of a type listed in Annex A, Group II of the *Montreal Protocol on Substances That Deplete the Ozone Layer*, 8th Edition, 2009.

JAR-OPS 1.825 Life Jackets

(See IEM OPS 1.825)

(a) *Land aeroplanes*. An operator shall not operate a land aeroplane:

(1) When flying over water and at a distance of more than 50 nautical miles from the shore, in the case of landplanes operated in accordance with JAR-OPS 1.500, 1.505, 1.540, 1.580 or 1.585; or

(2) When flying enroute over water beyond gliding distance from shore, in the case of all other landplanes; or

(3) When taking off or landing at an aerodrome where the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching, unless it is equipped with life jackets equipped with a survivor locator light, for each person on board. Each life jacket must be stowed in a position easily accessible from the seat or berth of the person for whose use it is provided. Life jackets for infants may be substituted by other approved flotation devices equipped with a survivor locator light.

AUA-OPS 1.842 Aeroplanes equipped with head-up displays (HUD) and/or enhanced vision systems (EVS)

Prior approval from the Authority is required for the operation of aircraft using head-up displays (HUD) and/or enhanced vision systems (EVS).

AUA-OPS 1.845(c)

(c) 1. An operator shall not employ electronic navigation data products that have been processed for application in the air and on the ground unless the Authority has approved the operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them. The operator shall continue to monitor both process and products.

2. An operator shall implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

AUA-OPS 1.850(d)

(d) For flights in defined portions of airspace or on routes where a Required Communications Performance (RCP) type has been prescribed, an aeroplane shall, in addition to the requirements specified in this Subpart:

1. be provided with communication equipment which will enable it to operate in accordance with the prescribed RCP type(s); and

2. be authorized by the Authority for operations in such airspace.

AUA-OPS 1.865 (d)(2)

2. For operations where a navigation specification for performance-based navigation has been prescribed, an aeroplane shall, in addition to requirements specified in this Subpart;

(i) be provided with navigation equipment which will enable it to operate in accordance with the prescribed navigation specification(s); and

(ii) be authorised by the Authority for such operations.

AUA-OPS 1.866 (b) and (c)

(b) All aeroplanes for which the individual certificate of airworthiness is first issued after 1 January 2009 shall be equipped with a data source that provides pressure- altitude information with a resolution of 7.62 m (25 ft), or better.

(c) After 1 January 2012, all aeroplanes shall be equipped with a data source that provides pressure-altitude information with a resolution of 7.62 m (25 ft), or better.

AUA-OPS 1.872 (b)

(b) The aeroplane shall demonstrate a vertical navigation performance in accordance with Appendix to AUA-OPS 1.872.

(c) The operator shall institute:

1. appropriate procedures in respect of continued airworthiness (maintenance and repair)practices and programmes; and

2. appropriate flight crew procedures for operations in RVSM airspace.

(d) The operator shall ensure that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.

APPENDIX to AUA-OPS 1.872

1. In respect of groups of aeroplanes that are nominally of identical design and build with respect to all details that could influence the accuracy of height-keeping performance, the height-keeping performance capability shall be such that the total vertical error (TVE) for the group of aeroplanes shall have a mean no greater than 25 m (80 ft) in magnitude and shall have a standard deviation no greater than 28 – 0.013z2 for $0 \leq z \leq 25$ when z is the magnitude of the mean TVE in metres, or 92 – 0.004z2 for $0 \leq z \leq 80$ where z is in feet. In addition, the components of TVE shall have the following characteristics:

a) the mean altimetry system error (ASE) of the group shall not exceed 25 m (80 ft) in magnitude;

b) the sum of the absolute value of the mean ASE and of three standard deviations of ASE shall not exceed 75 m (245 ft);and

c) the differences between cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

2. In respect of aeroplanes for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aeroplanes encompassed by paragraph 1, the height-keeping performance capability shall be such that the components of the TVE of the aeroplane have the following characteristics:

a) the ASE of the aeroplane shall not exceed 60 m (200 ft) in magnitude under all flight conditions; and

b) the differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

AUA-OPS 1.875 General (See IEM OPS 1.875)

(a) An operator shall not operate an aeroplane unless it is maintained and released to service by:

(1) An organization appropriately approved by the Authority in accordance with AUA-RLW, or

(2) An organization accepted by the Authority and approved/accepted in accordance with EASA Part-145, except that pre-flight inspections need not necessarily be carried out by such organization.

(b) This Subpart prescribes aeroplane maintenance requirements needed to comply with the operator certification requirements in JAR-OPS 1.180.

AUA-OPS 1.880 Terminology

The following definitions from EASA Part 145 shall apply to this subpart:

(a) *Preflight inspection* – means the inspection carried out before flight to ensure that the aeroplane is fit for the intended flight. It does not include defect rectification.

(b) Approved standard – means a manufacturing /design/maintenance/quality standard approved by the Authority.

(c) *Approved by the Authority* – means approved by the authority directly or in accordance with a procedure approved by the Authority.

AUA-OPS 1.885 Application for and approval of the operator's maintenance system

The following definitions from EASA Part 145 shall apply to this subpart:

(a) For the approval of the maintenance system, an applicant for the initial issue, variation and renewal of an AOC shall submit the documents specified in JAR-OPS 1.185(b). (See IEM OPS 1.885(a).)

(b) An applicant for the initial issue, variation and renewal of an AOC who meets the requirements of this subpart, in conjunction with the exposition of an appropriate maintenance organization as referred to in AUA-OPS 1.875(a) is entitled of approval of the maintenance system by the Authority. (See IEM OPS 1.885(b).)

Note: Detailed requirements are given in JAR-OPS 1.180(a)(3)and 1.180(b), and JAR-OPS 1.185.

AUA-OPS 1.890 Maintenance Responsibility

(a) An operator shall ensure the airworthiness of an aeroplane and serviceability of both operational and emergency equipment by (See AMC OPS 1.890(a)):

(1) The accomplishment of preflight inspections (See AMC OPS 1.890(a)(1));

(2) The rectification to an approved standard of any defect and damage affecting the safe operation, taking into account the minimum equipment list and configuration deviation list if available for the aeroplane type (See AMC OPS 1.890(a)(2));

(3) The accomplishment of all maintenance in accordance with the approved operator's aeroplane maintenance program specified in JAR-OPS 1.910 (See AMC OPS 1.890(a)(3));

(4) The analysis of the effectiveness of the operator's approved aeroplane maintenance programme (See AMC OPS 1.890(a)(4));

(5) The accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement made mandatory by the Authority. (See AMC OPS 1.890(a)(5));

(6) The accomplishment of modifications in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy. (See AMC OPS 1.890(a)(6));

(b) An operator shall ensure that the Certificate of Airworthiness for each aeroplane operated remains valid in respect of:

(1) The requirements in sub-paragraph (a) above;

(2) Any calendar expiry date specified in the Certificate; and

(3) Any other maintenance condition specified in the Certificate.

(c) The requirements specified in sub-paragraph (a) above must be performed in accordance with procedures acceptable to the Authority.

AUA-OPS 1.893 Maintenance Management

(a) An operator must be appropriately approved in accordance with the requirements of AUA-RLW to carry out the requirements specified in JAR-OPS 1.890(a)(2), (3), (5) and (6) except when the Authority is satisfied that the maintenance can be contracted to an organization that is appropriately EASA Part 145 approved/accepted, and accepted by the Authority.

(b) An operator must employ a person or group of persons acceptable to the Authority to ensure that all maintenance is carried out in accordance with the Maintenance Management Exposition, on time, and to an approved standard such that the maintenance responsibility requirements in AUA-OPS 1.890 are satisfied. The person, or senior person, as appropriate, is the nominated postholder referred to in JAR-OPS 1.175 (i)(2). The Nominated Postholder for maintenance is also responsible for any corrective action resulting from the quality monitoring of JAR-OPS 1.900(a). (See AMC OPS 1.895 (b)).

(c) The Nominated Postholder for Maintenance should not be employed by a maintenance organization under contract to the Operator, unless specifically agreed by the Authority. (See AMC OPS 1.895(c)).

(d) When an operator is not appropriately approved as a maintenance organization in accordance with AUA-RLW, or if an operator subcontracts accomplishment of its maintenance activities, arrangements must be made with a maintenance organization as referred to in AUA-OPS 1.875 (a)(1) or (a)(2) to carry out the requirements specified in AUA OPS 1.890(a)(2), (3), (5) and (6). Except as otherwise specified in paragraphs (e), (f) and (g) below, the arrangement must be in the form of a written maintenance contract between the operator and the maintenance organization detailing the functions specified in AUA-OPS 1.890(a)(2), (3), (5) and (6) and defining the support of the quality functions of AUA-OPS 1.900. Aeroplane base and scheduled line maintenance and engine maintenance contracts, together with all amendments, must be acceptable to the Authority. The Authority does not require the commercial elements of a maintenance contract. (See AMS OPS 1.895(d)).

(e) Notwithstanding paragraph (d) above, the operator may have a contract with an organization that is not EASA Part 145 approved/accepted, provided that:

(1) for aeroplane or engine maintenance contracts, the contracted organization is an Aruban AOC holder or a JAR-OPS Operator of the same type of aeroplane,

(2) all maintenance is ultimately performed by JAR-145 approved/accepted organizations,

(3) such a contract details the functions specified in AUA-OPS 1.890(a)(2), (3), (5) and (6) and defines the support of the quality functions of AUA-OPS 1.900,

(4) the contract, together with all amendments, is acceptable to the Authority. The Authority does not

require the commercial elements of a maintenance contract. (See AMC OPS 1.895(e)).

(f) Notwithstanding paragraph (d) above, in the case of an aeroplane needing occasional line maintenance, the contract may be in the form of individual work orders to the Maintenance Organization. (See IEM-OPS 1.895(f)&(g)).

(g) Notwithstanding paragraph (d) above, in the case of aeroplane component maintenance, including engine maintenance, the contract may be in the form of individual work orders to the Maintenance Organization (See IEM-OPS 1.895(f)&(g)).

(h) An operator must provide suitable office accommodation at appropriate locations for the personnel specified in sub-paragraph (b) above. (See AMC OPS 1.895(h)).

AUA-OPS 1.900 Quality System

(a) For maintenance purposes, the operator's quality system, as required by JAR-OPS 1.035, must additionally include at least the following functions:

(1) Monitoring that the activities of JAR-OPS 1.890 are being performed in accordance with the acceptable procedures;

(2) Monitoring that all contracted maintenance is carried out in accordance with the contract; and

(3) Monitoring the continued compliance with the requirements of this Subpart.

(b) Where the operator is approved as a maintenance organization in accordance with AUA-RLW, the quality system may be combined with the quality system required by AUA-RLW.

AUA-OPS 1.905 Operator's Maintenance Management Exposition

(a) An operator must provide an operator's Maintenance Management Exposition containing details of the organization structure (See AMC OPS 1.905(a)) including:

(1) The nominated postholder responsible for the maintenance system required by JAR-OPS 1.175(i)(2) and the person, or group of persons, referred to in AUA- OPS 1.895(b));

(2) The procedures that must be followed to satisfy the maintenance responsibility of AUA-OPS 1.890 and the quality functions of AUA-OPS 1.900, except that where the operator is appropriately approved as a maintenance organization in accordance with AUA-RLW, such details may be included in the exposition required by AUA-RLW.

(b) The design of the operator's maintenance management exposition shall observe human factors principles.

(c) The operator shall ensure that the maintenance control manual is amended as necessary to keep the information contained therein up to date.

(d) An operator's maintenance management exposition and any subsequent amendment must be approved by the Authority.

(e) Copies of all amendments to the operator's maintenance management exposition shall be furnished promptly to all organizations or persons to whom the manual has been issued.

(f) The operator shall provide the Authority and the State of Registry (if applicable) with a copy of the operator's maintenance management exposition, together with all amendments and/or revisions to it and shall incorporate in it such mandatory material as the Authority or the State of Registry (if applicable) may require.

AUA-OPS 1.910 Operator's Aeroplane Maintenance Programme

(a) An operator must ensure that the aeroplane is maintained in accordance with the operator's aeroplane maintenance programme. The programme must contain details, including frequency, of all maintenance required to be carried out. The programme will be required to include a reliability programme when the Authority determines that such a reliability programme is necessary. (See AMC OPS 1.910(b)).

(b) The operator's approved aeroplane maintenance programme must be subject to periodic reviews and amended when necessary. The reviews will ensure that the programme continues to be valid in light of operating experience whilst taking into account new and/or modified maintenance instructions promulgated by the Type Certificate holder. (See AMC OPS 1.910(b)).

(c) The operator's approved aeroplane maintenance programme must reflect applicable mandatory regulatory requirements addressed in documents issued by the Type Certificate holder to comply with JAR-21.61, or equivalent requirements issued by the State of Design. The maintenance programme shall include all information required by the authority. This includes, but shall not be limited to, the following:

1. maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aeroplane;

2. when applicable, a continuing structural integrity programme;

3. procedures for changing or deviating from (1) and (2) above; and

4. when applicable, condition monitoring and reliability programme descriptions for aircraft systems,components and engines.(See AMC OPS 1.910(c))

(d) The design of the operator's aeroplane Maintenance Programme shall observe human factors principles.

(e) An operator's aeroplane maintenance programme and any subsequent amendment must be approved by the ority. (See AMC OPS 1.910(d)).

(f) Copies of all amendments to the operator's maintenance programme shall be furnished promptly to all tions or persons to whom the manual has been issued.

AUA-OPS 1.915 Operator's Aeroplane Technical Log

(a) An operator must use an aeroplane technical log system containing the following information for each aeroplane:

(1) Information about each flight necessary to ensure continued flight safety;

(2) The current aeroplane certificate of release to service;

(3) The current maintenance statement giving the aeroplane maintenance status of what scheduled and out-of-aintenance is next due except that the Authority may agree to the maintenance statement being kept elsewhere;

(4) All outstanding deferred defects that affect the operation of the aeroplane; and

(5) Any necessary guidance instructions on maintenance support arrangements.

(b) The aeroplane technical log system and any subsequent amendment must be approved by the Authority.

AUA-OPS 1.920 Maintenance Records

(a) An operator shall ensure that the aeroplane technical log is retained for 24 months after the date of the last entry.

(b) An operator shall ensure that a system has been established to keep, in a form acceptable to the Authority, the following records for the periods specified:

1. All detailed maintenance records in respect of the aeroplane and any aeroplane component fitted thereto – 24 months after the aeroplane or aeroplane component was released to service;

2. The total time and flight cycles as appropriate, of the aeroplane and all life- limited aeroplane components – 12 months after the aeroplane has been permanently with drawn from service;

3. The time and flight cycles as appropriate, since last overhaul of the aeroplane or aeroplane component subjected to an overhaul life – Until the aeroplane or aeroplane component overhaul has been superseded by another overhaul of equivalent work scope and detail;

4. The current aeroplane inspection status such that compliance with the approved operator's aeroplane maintenance programme can be established – Until the aeroplane or aeroplane component inspection has been superseded by another inspection, of equivalent work scope and detail;

5. The current status of airworthiness directives applicable to the aeroplane and aeroplane components – 12 months after the aeroplane has been permanently withdrawn from service; and

6. Details of current modifications and repairs to the aeroplane, engine(s), propellers(s) and any other aeroplane component vital to flight safety – 12 months after the aeroplane has been permanently withdrawn from service; (See IEM OPS 1.920(b)(6)).

(c) An operator shall ensure that in the event of a temporary change of operator, the records shall be made available to the new operator. An operator shall ensure that when an aeroplane is permanently transferred from one operator to another operator the records specified in paragraphs (a) and (b) are also transferred and the time periods prescribed will continue to apply to the new operator. (See AMC OPS 1.920(c)).

AUA-OPS 1.925 Continuing Airworthiness

(a) The operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide the information as prescribed by the Authority and report through a system specified by the Authority.

(b) The operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organization responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

(c) All modifications and repairs shall comply with airworthiness requirements acceptable to the Authority. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

AUA-OPS 1.930 Continued validity of the Air Operator Certificate in Respect of the Maintenance System

An operator must comply with JAR-OPS 1.175 and 1.180 to ensure continued validity of the air operator's certificate in respect of the maintenance system.

AUA-OPS 1.935 Equivalent Safety Case

An operator shall not introduce alternative procedures to those prescribed in this Subpart unless needed and an equivalent safety case has first been approved by the Authority.

AUA-OPS 1.940(a)(2)

(2) The flight crew includes additional flight crew members when required by the type of aeroplane used, the type of operation involved and the duration of flight between points where flight crews are changed, and is not reduced below the number specified in the Operations Manual;

(3) All flight crew members hold an applicable and valid licence acceptable to the Authority and are suitably qualified and competent to conduct the duties assigned to them. The flight crew shall include at least one member who holds a valid licence, issued or rendered valid by the State of Registry, authorizing operation of the type of radio transmitting equipment to be used.

Appendix 2 to JAR-OPS 1.940

Single pilot operations under IFR or at night

(a) Aeroplanes referred to in JAR-OPS 1.940(b)(2) may be operated by a single pilot under IFR or at night when the following requirements are satisfied:

(1) The operator shall include in the Operations Manual a pilot's conversion and recurrent training programme which includes the additional requirements for a single pilot operation;

(2) In particular, the cockpit procedures must include:

(i) Engine management and emergency handling;

(ii) Use of normal, abnormal and emergency checklists;

(iii) ATC communication;

(iv) Departure and approach procedures;

(v) Autopilot management; and

(vi) Use of simplified in-flight documentation;

(3) The recurrent checks required by JAR-OPS 1.965 shall be performed in the single pilot role on the type or class of aeroplane in an environment representative of the operation;

(4) The pilot shall have a minimum of 50 hours flight time on the specific type or class of aeroplane under IFR of which 10 hours is as commander; and

(5) The minimum required recent experience for a pilot engaged in a single-pilot operation under IFR or at night shall be 5 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on the type or class of aeroplane in the single-pilot role. This requirement may be replaced by an IFR instrument approach check on the type or class of aeroplane.

(6) The flight manual does not require a flight crew of more than one.

(7) The maximum certificated take-off mass does not exceed 5700 kg.

Appendix 1 to OPS 1.965 item (a)(4)(iii)

4. *Crew Resource Management (CRM)* .

(i) Elements of CRM shall be integrated into all appropriate phases of recurrent training; and

(ii) A specific modular CRM training programme shall be established such that all major topics of CRM training are covered over a period not exceeding 3 years, as follows:

(A) Human error and reliability, error chain, error prevention and detection;

(B) Company safety culture, SOPs, organisational factors;

(C) Stress, stress management, fatigue and vigilance;

(D) Information acquisition and processing, situation awareness, workload management;

(E) Decision making;

(F) Communication and co-ordination inside and outside the cockpit;

(G) Leadership and team behaviour, synergy;

(H) Automation and philosophy of the use of automation (if relevant to the type);

(I) Specific type-related differences;

(J) Case-based studies;

(K) Additional areas which warrant extra attention, as identified by the safety management system (see AUA-OPS 1.037).

(iii) Operators shall establish procedures to update their CRM recurrent training programme. Revision of the Programme shall be conducted over a period not exceeding 3 years. The revision of the programme shall take into account the de-identified results of the CRM assessments of crews, and information identified by the safety management system.

AUA-OPS 1.987 Spare correcting lenses

A flight crew member assessed as fit to exercise the privileges of a licence, subject to the use of suitable correcting lenses, shall have a spare set of the correcting lenses readily available when exercising those privileges.

AUA-OPS 1.1040 General rules for Operation Manuals

(a) An operator shall ensure that the Operations Manual contains all instructions and information necessary for operations personnel to perform their duties.

(b) An operator shall ensure that the contents of the Operations Manual, including all amendments or revisions, do not contravene the conditions contained in the Air Operator Certificate (AOC) or any applicable regulations and must be acceptable to, or, where applicable, approved by the Authority. (See IEM OPS 1.1040(b).)

(c) An operator must prepare the Operations Manual in the English language. In addition, an operator may translate and use that manual, or parts thereof, into another language. (See IEM OPS 1.1040(c).)

(d) Should it become necessary for an operator to produce new Operations Manuals or major parts or volumes thereof, he must comply with sub-paragraph (a) above.

(e) An operator may issue an Operations Manual in separate volumes.

(f) An operator shall ensure that all operations personnel have easy access to a copy of each part of the Operations Manual which is relevant to their duties. In addition, the operator shall supply crew members with a personal copy of, or sections from, Parts A and B of the Operations Manual as are relevant for personal study.

(g) An operator shall ensure that the Operations Manual is amended or revised so that the instructions and information contained therein are kept up to date. The operator shall ensure that all operations personnel are made aware of such changes that are relevant to their duties.

(h) Each holder of an Operations Manual, or appropriate parts of it, shall keep it up to date with the amendments or revisions supplied by the operator.

(i) An operator shall supply the Authority with intended amendments and revisions in advance of the effective date. When the amendment concerns any part of the Operations Manual which must be approved in accordance with JAR-OPS, this approval shall be obtained before the amendment becomes effective. When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

(j) An operator shall incorporate all amendments and revisions required by the Authority.

(k) An operator must ensure that information taken from approved documents; and any amendment of such approved documentation, is correctly reflected in the Operations Manual and that the Operations Manual contains no information contrary to any approved documentation. However, this requirement does not prevent an operator from using more conservative data and procedures.

(l) An operator must ensure that the contents of the Operations Manual are presented in a form in which they can be used without difficulty.

(m) An operator may be permitted by the Authority to present the Operations Manual or parts thereof in a form other than on printed paper. In such cases, an acceptable level of accessibility, usability and reliability must be assured.

(n) The use of an abridged form of the Operations Manual does not exempt the operator from the requirements of JAR-OPS 1.130.

Appendix 1 to OPS 1.1045 item (A)(2.3)

2.3 *Safety Management System.* A description of the main aspects of the flight safety programme.

AUA-OPS 1.1050 Aeroplane Flight Manual

(a) An operator shall keep a current approved Aeroplane Flight Manual or equivalent document for each aeroplane that it operates.

(b) The Aeroplane Flight Manual shall be updated by implementing changes made mandatory by the Authority.

AUA-OPS 1060 (c), (d), (e) & (f)

(c) An operator must ensure that the operational flight plan content and its use are described in the Operations Manual.

(d) An operator shall ensure that all entries on the operational flight plan are made concurrently and that they are permanent in nature.

(e) The operational flight plan shall be completed for every intended flight and shall be approved by the commander, and where applicable, by the flight operations officer/flight dispatcher and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure.

(f) The operator shall determine the most efficient means of lodging the operational flight plan to the appropriate Air Traffic Services.

Appendix 1 to JAR–OPS 1.1065 Document storage periods (Table 1)

Table 1 – Information used for the preparation and execution of a flight

Information used for the preparation and execution of the flight as described in JAR–OPS 1.135	
Operational flight plan	3 months
Aeroplane Technical log	24 months after the date of the last entry
Route specific NOTAM/AIS briefing documentation if edited by the operator	3 months
Mass and balance documentation	3 months
Notification of special loads including written information to the commander about dangerous goods	3 months
Fuel and Oil Records	3months

AUA-OPS 1.1080 Objective, Scope and Responsibilties

(a) Objective and scope

An operator shall establish a flight and duty time limitations and rest (FTL) scheme for crew members.

(b) An operator shall ensure that for all its flights:

1. The flight and duty time limitations rest scheme is in accordance with the provisions of this Sub Part.

2. Flights are planned to be completed within the allowable flight and duty period taking into account the time necessary for pre-flight duties, the flight and turn-around times and the nature of operation.

3. Duty rosters will be prepared and published sufficiently in advance to provide the opportunity for crew members to achieve adequate rest.

(c) Operators' Responsibilities

1. An operator shall nominate a home base for each crew member.

2. Operators are expected to appreciate the relationship between the frequency and pattern of flight duty periods and rest periods and give due consideration to the cumulative effects of undertaking long duty hours interspersed with minimum rest.

3. Operators shall allocate duty patterns which avoid such undesirable practices as alternating day and night duties or the positioning of crew members so that a serious disruption of established sleep and work pattern occurs.

4. Planning local days off free of duty and notifying crew members in advance.

5. Operators shall ensure that rest periods provide sufficient time to enable crew members to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period.

6. Operators shall ensure flight duty periods are planned to enable crew members to remain sufficiently free from fatigue so they can operate to a satisfactory level of efficiency and safety under all circumstances.

(d) Crew Member's Responsibilities

1. A crew member shall not operate on aeroplane if he/she knows or suspects that he/she is suffering from or is likely to suffer from fatigue, or feels unfit to the extent that the flight may be endangered.

2. Crew members should make optimum use of the opportunities and facilities for rest provided and plan and use their rest periods properly.

(e) Variations

1. Subject to the common review procedure, the Department of Civil Aviation may grant variations to the requirements in this Sub Part for special types of operations or to meet specific operational needs in accordance with applicable laws and procedures in consultation with all interested parties.

2. Each operator will have to demonstrate to the Department of Civil Aviation using current scientific knowledge and operational experience, that its request for a variation produces an equivalent level of safety. Such variations will be accompanied with suitable mitigation measures.

3. In deciding to grant a variation, the Department of Civil Aviation shall take into account all the requirements of this sub part. Such variations *should* be granted only in isolation or in limited combinations.

AUA-OPS 1.1085 Definitions

(a) Definitions

Augmented Crew: A flight crew which comprises more than the minimum number required for the operation of the aeroplane and in which each flight crew member can leave his/her post and be replaced by another appropriately qualified flight crew member.

Block Time: The time between an aeroplane first moving from its parking place for the purpose of taking off until it comes to rest on the designated parking position and until all engines are stopped.

Day Off: Periods of time available for leisure and relaxation free from all duties. A single day off shall include two local nights. Consecutive days off shall include a further local night for each additional consecutive day off. A rest period may be included as part of a day off.

Break: A period free of all duties, which counts as duty, being less than a rest period.

Duty: Any task that a flight crew member is required to carry out associated with the business of an AOC holder.

Duty Period: A period which starts when the crew member is required by an operator to report for a duty and ends when the crew member is free from all duties.

Home Base: The location nominated by the operator to the crew member from where the crew member normally starts and ends a duty period or a series of duty periods and where, under normal conditions, the operator is not responsible for the accommodation of the crew member concerned.

Flight Duty Period (FDP): A Flight Duty Period (FDP) is any time during which a person operates in an aircraft as a member of its crew. The FDP starts when a crew member is required by an operator to report for a flight or series of flights; and it finishes at the end of the last flight on which he/she is an operating crew member or other time as specified by the Department of Civil Aviation.

Local Day: A 24 hour period commencing at 00:00 local time.

Local Night: The period between 22:00 hours and 08:00 hours local time.

Positioning: The transferring of a non-operating crew member from place to place, at the behest of the operator, excluding travelling time. Travelling time being defined as:

- time from home to a normal reporting place;

- time for local transfer from a place of rest to the commencement of duty.

A Single Day Free Of Duty: A single day free of duty shall include two local nights. A rest period may be included as part of the day off.

Rest Period: An uninterrupted and defined period of time which a crew is free from all duties. A flight crew member shall not be disturbed during a rest period.

Standby: A defined period of time during which a crew member is required by the operator to be available to receive an assignment for a flight, positioning or other duty without an intervening rest period.

Time Zone Adapted: To become time zone adapted a crew member must achieve 3 consecutive local nights free of duty on the ground in a time zone which is no more than two hours wide. He/she will remain time zone adapted until he/she becomes time zone adapted to another time zone or, becomes non- time zone adapted by finishing a duty period at a place where local time differs by more than two hours from that to which he/she is time zone adapted.

Travelling: Time spent by a crew member transferring between his/her place of rest and the place of reporting (see section 2.5).

Window of Circadian Low (WOCL): The Window of Circadian Low (WOCL) is the period between 02:00 and 06:00 hours. Within a band of three time zones the WOCL refers to home base time. Beyond these three time zones the WOCL refers to home base time for the first 48 hours after departure from home base time zone and to local time thereafter.

Operating crew member: A crew member who carries out his/her duties in an aircraft during a flight or during any part of a flight.

AUA-OPS 1.1090 Flight Periods, Duty Periods and Duty Rest Periods

(See Appendix 1 to AUA-OPS 1.1090)

(a) Flight and Duty Limits

1. Cumulative Limit on Flying Hours
An operator shall ensure that the total block times of the flights on which an individual crew member is assigned as an operating crew member does not exceed:

(a) 1000 hours in a calendar year, spread as evenly as practicable throughout the year;

(b) 100 hours in any 30 consecutive days.

2. Cumulative Duty Hours
An operator shall ensure that the total duty periods to which a crew member is assigned do not exceed:

2.1 190hours in any 28 consecutive days

2.2 60 hours in any 7 consecutive days

3. Maximum daily Flight Duty Period (FDP)

3.1 An operator shall specify reporting times that realistically reflect the time for safety related ground duties as approved by the Department of Civil Aviation.

3.2 The maximum basic daily FDP is 13 hours.

3.3 These 13 hours will be reduced by 30 minutes for each sector from the third sector onwards with a maximum reduction for sectors of two hours.

3.4 When the FDP starts in the WOCL, the maximum stated in 2.3.2 and 2.3.3 will be reduced by 100% of its encroachment up to a maximum of two hours. When the FDP ends in or fully encompasses the WOCL, the maximum FDP stated in 2.3.2 and 2.3.3 will be reduced by 50% of its encroachment (see Appendix 1 to AUA-OPS 1.1080).

3.5 Extensions:

(a) The maximum daily FDP can be extended by up to one hour.

(b) Extensions are not allowed for a basic FDP of 6 sectors or more.

(c) Where an FDP encroaches on the WOCL by up to two hours extensions are limited to up to four sectors.

(d) Where an FDP encroaches on the WOCL by more than two hours extensions are limited to up to two sectors.

(e) The maximum number of extensions is two between two periods of weekly rest.

(f) Where an FDP is planned to use an extension pre and post flight minimum rest is increased by two hours or post flight rest only is increased by four hours. Where the extensions are used for consecutive FDPs the pre and post rest between the two operations shall run concurrently.

3.6 For Cabin Crew members assigned to the same flight or series of flights as flight crew members the maximum FDP may be exceeded by up to one hour the FDP of the flight crew members up to a maximum FDP of 14:00 hours. The operator may base the allowable flight duty period upon the flight crew’s reporting time.

3.7 Operational Robustness

Planned schedules must allow for flights to be completed within the maximum permitted flight duty period. To assist in achieving this, operators will take action to change a schedule or crewing arrangements where the operation fails to achieve 66% regularity within the maximum FDP.

4. Night Duties

A crew member may be scheduled for no more than 3 consecutive duties that encroach on the period 01:00 to 06:59 local time within any 7 consecutive days.

5 Positioning & Travelling

5.1 All time spent on positioning is counted as duty.

5.2 Positioning after reporting but prior to operating shall be included as part of the FDP but shall not count as a sector.

(b) Rest

1. Minimum Rest

1.1 The minimum rest which must be provided before undertaking a flight duty period starting at home base shall be at least as long as the preceding duty period or 12 hours whichever is the greater.

1.2 The minimum rest period which must be provided before undertaking a flight duty period starting away from home base shall be at least as long as the preceding duty period or 10 hours whichever is the greater; when on minimum rest away from base, the operator must allow for an 8 hours’ sleep opportunity taking due account of travelling as well as other physiological needs.

2. Rest Periods

An operator shall ensure that the minimum rest provided outlined above is increased to at least one 36 hour period including two local nights; there must be no more than 168 hours between successive weekly rest periods.

(c) Flight Duty Period Extension

1. Flight Crew Augmentation

1.1 Augmentation 1

On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see JAR-OPS 1 for Aruba Sub Part N, Appendix 1, JAR-OPS 1.940):

(a) The operator must provide a comfortable reclining seat separated and screened from the flight deck and the passenger.

(b) The maximum FDP is 16 hours irrespective of encroachment of the WOCL.

1. 2 Augmentation 2

On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see JAR-OPS 1 for Aruba Sub Part N, Appendix 1, JAR-OPS 1.940):

(a) The operator provides a bunk screened from the flight deck and passengers,

(b) The maximum FDP is 18 hours irrespective of encroachment of the WOCL.

1.3 Augmentation 3

On aircraft where the standard crew is only two pilots and is augmented with two additional qualified flight crew member (see JAR-OPS 1 for Aruba Sub Part N, Appendix 1, JAR-OPS 1.940):

(a) The operators must provide bunks separated and screened from the flight deck and passengers.

(b) The maximum FDP is 20 hours irrespective of encroachment of the WOCL.

1.4 General

In all cases where the flight crew are augmented the sharing of time away from task by crew members leaving their posts should be kept in balance. With reference to the provisions of dedicated crew rest facilities, as defined in 1.1, 1.2 and 1.3 above, these will be progressively introduced in conjunction with the acquisition of new aircraft types.

2. Cabin Crew

An Operator will agree with the authority the legal minimum in-flight rest required by cabin crew member(s) when the FDP goes beyond the limitations of paragraph 3 above. The authority must take into account the crew rest facilities provided on board the aircraft in reaching their decision. Cabin Crew carried in excess of the minimum necessary to meet safety requirements may be counted as augmented crew for the purposes of calculating the maximum permitted FDP and in-flight rest requirements. In the case where Cabin Crew are augmented crew members leaving their posts should be kept in balance.

3. Extended FDP (Split Duty)

Provided than an adequate level of safety is demonstrated, an operation based on an extended FDP including a break can be granted by the authority based on existing national legal provision.

(d) Unforeseen circumstances in actual flight operations- Commanders' Discretion

1. Taking into account the need for careful control of these instances implied in 3.2 underneath, during the actual flight operation, which starts at the reporting time, the limits on flight duty, duty and rest periods prescribed in this Sub Part may be modified in the event of unforeseen circumstances. Any such modifications must be acceptable to the commander after consultation with all other crew members and must, in all circumstances, comply with the following:

1.1 The allowable flight duty period may not be increased by more than 2 hours unless:

(a) The flight crew has been augmented, in which case the allowable flight duty period may be increased by not more than 3 hours.

(b) For Cabin Crew as augmented in accordance with paragraph 2 of this Sub Part, the allowable flight duty period may be extended by not more than 3 hours.

1.2 If on the final sector within a flight duty period unforeseen circumstances occur after take-off that will result in the permitted increase being exceeded, the flight may continue to the planned destination or alternate; and

1.3 The rest period may be reduced but never below the minimum rest defined in paragraph (b)(1) of this Sub Part.

2. The commander shall, in the case of special circumstances which might lead to fatigue and after consultation with the crew members affected, reduce the actual flight duty time and/or increase the rest time for the purposes of eliminating any adverse effects on flight safety.

3. An operator shall ensure that:

3.1 The Commander submits a report to the operator whenever a flight duty period is increased by his/her discretion or when a rest period is reduced in actual flight operation; and

3.2 Where the increase of a flight duty period or reduction of a rest period exceeds one hour, a copy of the report, to which the operator must add his comments, is sent to the Authority no later than 28 days after the event.

(e) Standby

1. Airport Standby

1.1 A crew member is on Airport Standby from reporting at the normal report point until to the end of the notified standby period.

1.2 Airport Standby duty will count in full for the purposes of cumulative duty hours totals.

1.3 Airport Standby duty shall be followed by at least a minimum rest period.

1.4 If called for duty, the standby time counts for 50% towards the total cumulative duty hours and flight duty period as prescribed in 2.2 and 2.3.

1.5 Whilst on airport standby, the operator will provide a quiet and comfortable place for the crew member which is not open to the public.

2. Other Forms of Standby

2.1 Standby periods shall be scheduled and notified at least 24 hours in advance;

2.2 The maximum duration of Standby duty will not exceed 12 hours.

2.3 Standby duty commences at start of standby period and ends at report time.

2.4 Standby is duty and counts in full towards total cumulative duty hours if not called for duty.

2.5 Rest period after standby duty is at least equal to period from start of standby to end of Duty Period.

2.6 The need to be rested for an assigned flight duty from standby is a common responsibility between Crew Member and Operator.

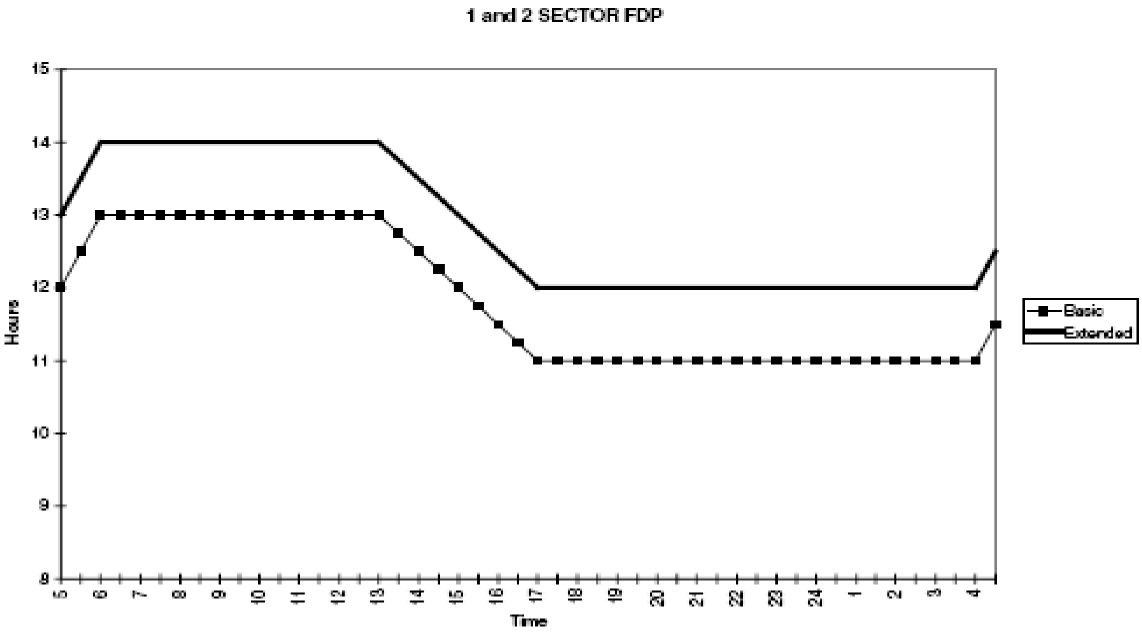
2.7 Reserve (Contactable/On-Call): A scheduled period of time during a day, other than a day off, of between 2 and 4 hours between 08:00 and 20:00 local time during which an operator may expect to be able to contact a crew member solely for notification of duty the next day (more than 12 hours in advance). Such periods do not count in cumulative duty totals and are not standby. There are no constraints on crew activity whilst on reserve.

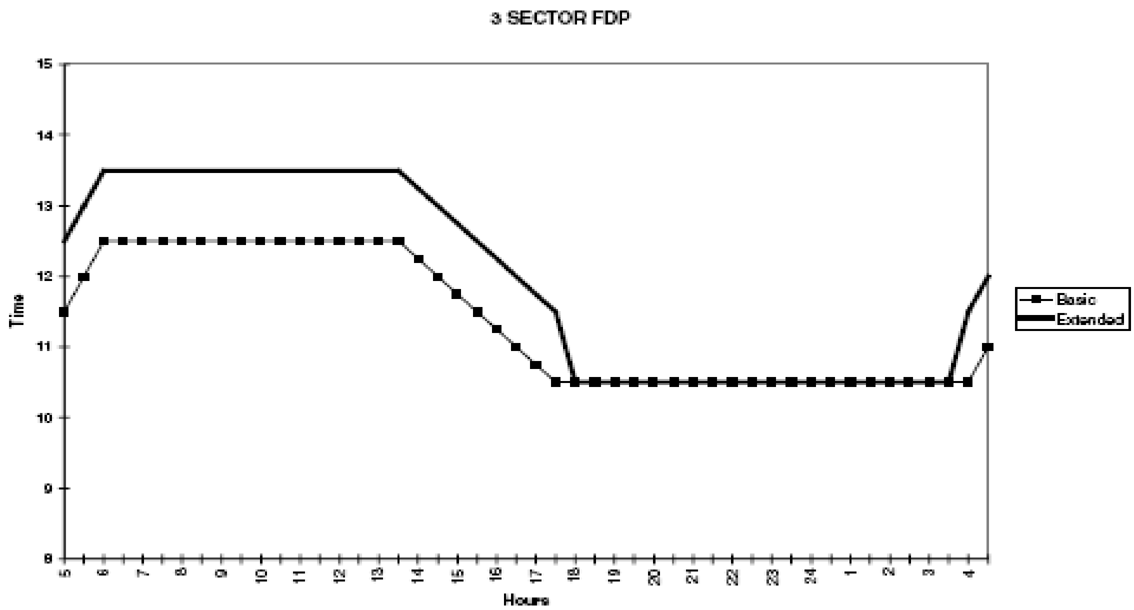
2.8 A crew member is on standby from the beginning to the end of the notified standby period or until actual report time for duty having been called during the standby period.

2.9 A crew member shall not be contacted to report for a duty which starts more than 2 hours after the end of the standby period.

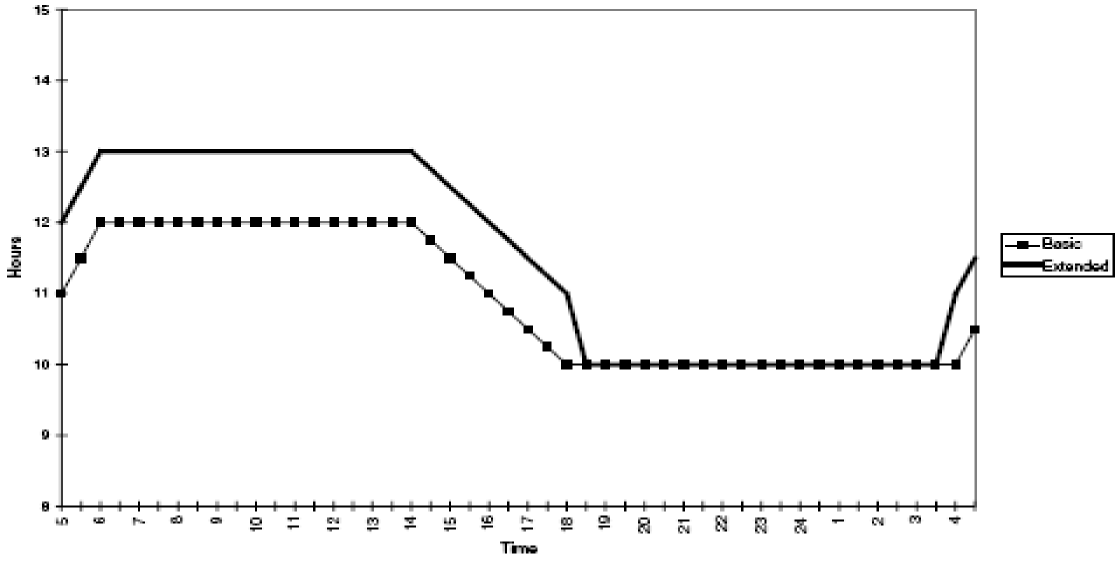
Appendix 1 to AUA-OPS1.1090

Flight Periods, Duty Periods and Duty Rest Periods

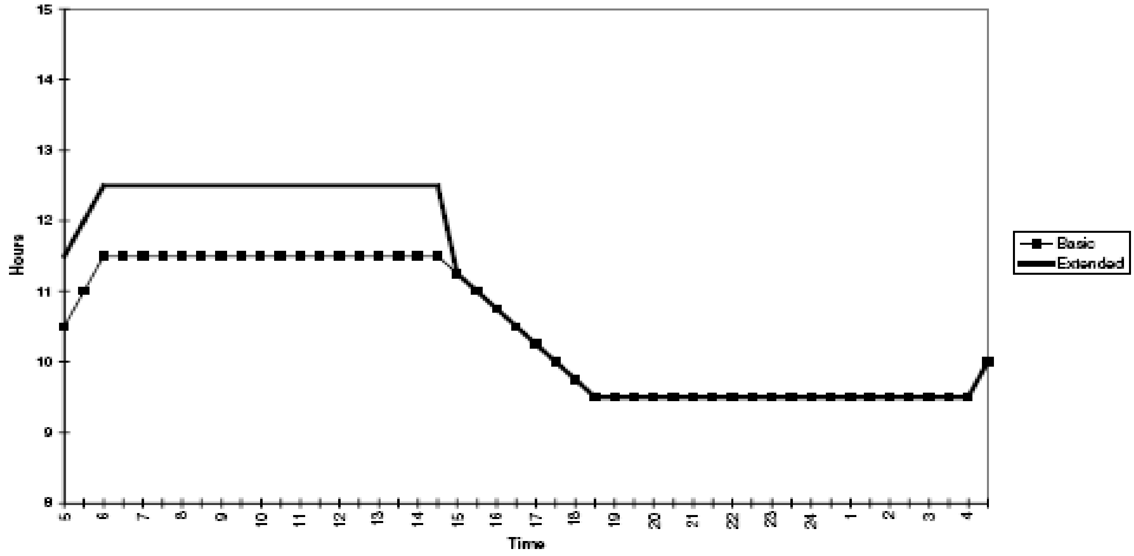


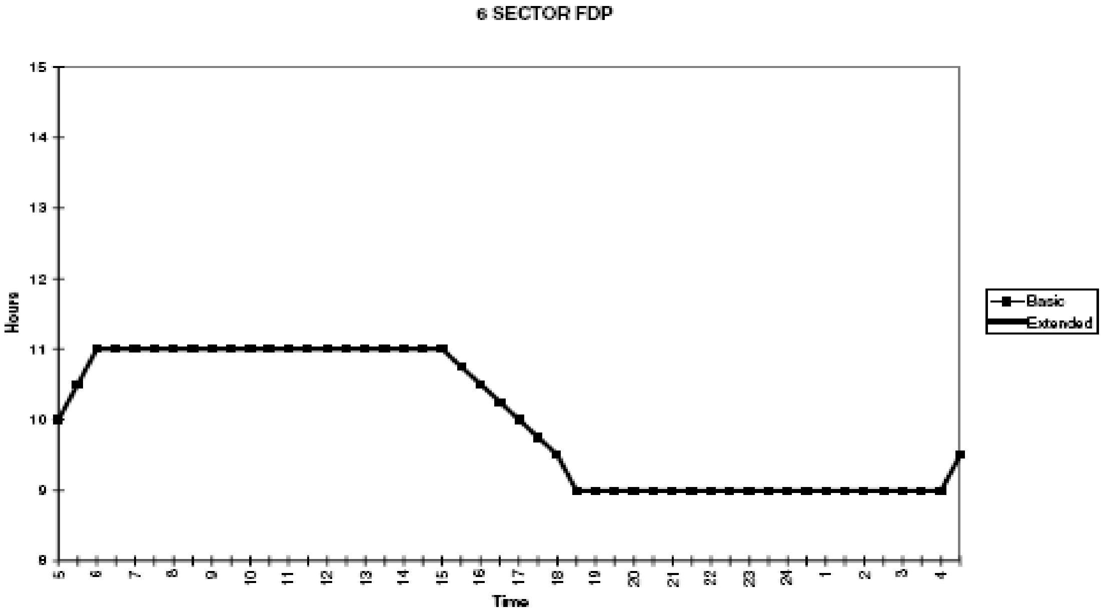


4 SECTOR FDP



5 SECTOR FDP





AUA-OPS 1.1095 Nutrition

Crew members and operators should be aware that a lack of sustenance could prove detrimental to an individual's performance and level of vigilance.

Meal opportunities should occur sufficiently frequently in order to avoid any detriment to a crew member's performance.

Where the FDP exceeds 6 hours, a meal opportunity shall be built into the schedule.

AUA-OPS 1.1100 Records

(a) Flight Duty, Duty and Rest period records

1.1An operator shall ensure that crew member's records include:

a) Block times;

b) Start, duration and end of each duty or flight duty periods;

c) Rest periods and days free of all duties,

and are maintained to ensure compliance with the requirements of this Sub Part.

1.2 Copies of these records will be made available to the crew member upon request.

(b) All crew members shall maintain an individual record, as appropriate, of their:

1. Block times;

2. Flight duty periods;

3. Duty periods; and

4. Rest periods and local days free of all duties, which must be presented to any operator who employs his/her services before he/she commences a flight duty period.

(c) Records shall be preserved for at least 15 calendar months from the date of the last relevant entry.

(d) Additionally, operators shall separate and retain all aircraft commanders' discretion reports of extended flying duty periods, extended flying hours, and reduced recovery periods for a period of at least six months after the event.

AUA-OPS 1.1105

Reserved

AUA-OPS 1.1240 Training programmes (See ACJ OPS 1.1240)

(a) An operator shall establish, maintain and conduct approved training programmes which enable the operator's crew members to take appropriate action to prevent acts of unlawful interference, such as sabotage or unlawful seizure of aeroplanes and to minimise the consequences of such events, should they occur. The training programme shall be compatible with the National Aviation Security programme. Individual crew member shall have knowledge and competence of all relevant elements of the training programme.

(b) An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

(c) As a minimum, this programme shall include the following elements:

1. determination of the seriousness of any occurrence;
2. crew communication and coordination;
3. appropriate self-defence responses;
4. use of non-lethal protective devices assigned to crew members whose use is authorized by the Authority;
5. understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;
6. live situational training exercises regarding various threat conditions;
7. flight crew compartment procedures to protect the aeroplane; and
8. aeroplane search procedures and guidance on least-risk bomb locations where practicable.

(d) An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

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Page 1-A-1

AUA - OPS 3.001 Applicability

(See Appendix 1 to JAR-OPS 3.001)

(a) JAR-OPS Part 3 prescribes requirements applicable to the operation of anycivil helicopter for the purpose of commercial air transportation by any operatorwhose principal place of business is in a JAA Member State or Aruba. JAR-OPS 3 does not apply to helicopters when used in military, customs and police services.

(b) The requirements in JAR-OPS Part 3 are applicable as of 1 January 1996 unless otherwise indicated.

AUA - OPS 3.025 Common Language

(a) An operator must ensure that all nominated post holders as mentioned in JAR-OPS 3.175(h) and (i) and all licenced personnel employed by the operator are able to demonstrate proper knowledge of the English language;

(b) An operator must ensure that all crew members can communicate in a common language;

(c) An operator must ensure that all required manuals are written and submitted in the Dutch or English language;

(d) An operator must ensure that all operations personnel are able to understand the language in which those parts of the Operations Manual which pertain to their duties and responsibilities are written.

(e) In addition to paragraph (a) above, an operator shall ensure that flight crew members demonstrate the ability to speak and understand the language used for radiotelephony communications as specified in ICAO Annex 1.

AUA - OPS 3.037 Safety Management

(a) An operator shall implement a safety management system acceptable to the Authority that, as a minimum:

1) identifies safety hazards;

2) ensures the implementation of remedial action necessary to maintain agreed safety performance;

3) provides for continuous monitoring and regular assessment of the safety performance; and

4) aims at a continuous improvement of the overall performance of the safety management system.

(b) The safety management system shall clearly define lines of safety accountability throughout the operator’s organization, including a direct accountability for safety on the part of senior management.

(c) The operator shall appoint a person accountable for managing the safety management system. Proposals for corrective action resulting from the safety management system shall be the responsibility of the person accountable for managing the system.

(d) The effectiveness of changes resulting from proposals for of corrective action identified by the safety management system shall be monitored by the Quality Manager.

AUA - OPS 3.165 Leasing

(a) Terminology

Terms used in this paragraph have the following meaning:

(1) Dry lease - Is when the helicopter is operated under the AOC of the lessee.

(2) Wet lease - Is when the helicopter is operated under the AOC of the lessor.

(3) JAA operator - An operator certificated under JAR - OPS Part 3 by one of the JAA Member States.

(b) General

(1) All leases require prior approval from the Authority.

(2) Wet lease-in An Aruban operator shall not wet lease-in an aeroplane in any of the following situations:

(i) If there is evidence that the State of lessor does not provide an adequate level of safety oversight;

(ii) If the type and scope of operation intended under the lease differs significantly from the type and scope of operation the lessee is authorised by the Authority to conduct;

(iii) If the intended lease is the sole operation of the lessee.

(3) Wet lease-out

An Aruban operator shall not wet lease-out an aeroplane for more than three consecutive months.

(c) Leasing of helicopters between Aruban and JAA operators

(1) Wet lease-out

An Aruban or JAA operator providing a helicopter and complete crew to another Aruban or JAA operator, and retaining all the functions and responsibilities prescribed in Subpart C, shall remain the operator of the helicopter.

(2) All leases except wet lease-out

(i) Except as provided by sub-paragraph (b)(1) above, an Aruban or JAA operator utilizing a helicopter from, or providing it to, another Aruban or JAA operator, must obtain prior approval for the operation from his respective Authority. Any conditions which are part of this approval must be included in the lease agreement.

(ii) Those elements of lease agreements which are approved by the Authority, other than lease agreements in which a helicopter and complete crew are involved and no transfer of functions and responsibilities is intended, are all to be regarded, with respect to the leased helicopter, as variations of the AOC under which the flights will be operated.

(d) Leasing of helicopters between an Aruban or JAA operator and any entity other than an Aruban or JAA operator

(1) Dry lease-in

(i) An Aruban or JAA operator shall not dry lease-in a helicopter from an entity other than an Aruban or JAA operator, unless approved by the Authority. Any conditions which are part of this approval must be included in the lease agreement.

(ii) An Aruban or JAA operator shall ensure that, with regard to helicopters that are dry leased-in, any differences from the requirements prescribed in Subparts K, L, or JAR-26, are notified to and are acceptable to the Authority.

(2) Wet lease-in

(i) An Aruban or JAA operator shall not wet lease-in a helicopter for more than 3 consecutive months in any 12 consecutive months from an entity other than a Aruban or JAA operator without the approval of the Authority.

(ii) A JAA or Aruban operator shall ensure that, with regard to helicopters that are wet leased-in:

(A) The safety standards of the lessor with respect to maintenance and operation are equivalent to JARS;

(B) The lessor is an operator holding an AOC issued by a State which is a signatory to the Chicago Convention;

(C) The helicopter has a standard Certificate of Airworthiness issued in accordance with ICAO Annex 8. Standard Certificates of Airworthiness issued by a JAA Member State or a State with equivalent standard, acceptable to the authority, other than the State responsible for issuing the AOC, will be accepted when issued in accordance with JAR-21 or equivalent; and

(D) Any Aruban requirement made applicable by the lessee's Authority is complied with.

(3) Dry lease-out

(i) An Aruban operator may dry lease-out a helicopter for the purpose of commercial air transportation to any operator of a State which is signatory to the Chicago Convention provided that the following conditions are met:

(A) The Authority has exempted the Aruban operator from the relevant provisions of JAR-OPS Part 3 and, after the foreign regulatory authority has accepted responsibility in writing for surveillance of the maintenance and operation of the helicopters, has removed the helicopter from its AOC; and

(B) The helicopter is maintained according to an approved maintenance programme.

(4) Wet lease-out

An Aruban operator providing a helicopter and complete crew to another entity and retaining all the functions and responsibilities prescribed in Subpart C, shall remain the operator of the helicopter.

AUA OPS 3.180 Issue, variation and continued validity of an AOC

(a) An operator will not be granted an AOC, or a variation to an AOC, and that

AOC will not remain valid unless:

(1) Helicopters operated have a standard Certificate of Airworthiness, issued in accordance with ICAO Annex 8 by a JAA Member State or a State with equivalent standard, acceptable to the Authority; Standard Certificates of Airworthiness Issued by a JAA Member State other than the State responsible for issuing the AOC, will be accepted when issued in accordance with JAR-21 or equivalent;

(2) The maintenance system has been approved by the Authority in accordance with Subpart M; and

(3) He has satisfied the Authority that he has the ability to:

(i) Establish and maintain an adequate organisation;

(ii) Establish and maintain a quality system in accordance with JAR- OPS 3.035;

(iii) Comply with required training programmes;

(iv) Comply with maintenance requirements, consistent with the nature and extent of the operations specified, including the relevant items prescribed in JAR- OPS 3.175(g) to (o); and

(v) Comply with JAR-OPS 3.175.

(b) Notwithstanding the provisions of JAR-OPS 3.185(f), the operator must notify the Authority as soon as practicable of any changes to the information submitted in accordance with subparagraph (a) above.

(c) If the Authority is not satisfied that the requirements of sub-paragraph (a) above have been met, the Authority may require the conduct of one or more demonstration flights, operated as if they were commercial air transport flights.

AUA-OPS 3.195 Operational Control (See AMC OPS 3.195)

(a) An operator shall:
1. Establish and maintain a method of exercising operational control approved by the Authority; and
2. Exercise operational control over any flight operated under the terms of his AOC.

(b) Responsibility for operational control shall be only delegated to the pilot-in- command, or if the operator's approved method of control and supervision of flight operation requires the use of flight operations officer/flight dispatcher personnel, to the pilot in command and to a flight operations officer/flight dispatcher

AUA-OPS 3.875 General (See IEM OPS 3.875)

(a) An operator shall not operate a helicopter unless it is maintained and released to service by:

(1) An organization appropriately approved by the Authority in accordance with AUA-RLW, or

(2) An organization accepted by the Authority and approved/accepted in accordance with EASA Part-145, except that pre-flight inspections need not necessarily be carried out by such organization.

(b) This Subpart prescribes aeroplane maintenance requirements needed to comply with the operator certification requirements in JAR-OPS 3.180.

AUA-OPS 3.880 Terminology

The following definitions from EASA Part 145 shall apply to this subpart:

(a) *Preflight inspection* – means the inspection carried out before flight to ensure that the aeroplane is fit for the intended flight. It does not include defect rectification.

(b) Approved standard – means a manufacturing /design/maintenance/quality standard approved by the Authority.

(c) *Approved by the Authority* – means approved by the authority directly or in accordance with a procedure approved by the Authority.

AUA-OPS 3.885 Application for and approval of the operator's maintenance system

The following definitions from EASA Part 145 shall apply to this subpart:

(a) For the approval of the maintenance system, an applicant for the initial issue, variation and renewal of an AOC shall submit the documents specified in JAR-OPS 3.185(b). (See IEM OPS 3.885(a).)

(b) An applicant for the initial issue, variation and renewal of an AOC who meets the requirements of this subpart, in conjunction with the exposition of an appropriate maintenance organization as referred to in AUA-OPS 3.875(a) is entitled of approval of the maintenance system by the Authority. (See IEM OPS 3.885(b).)

Note: Detailed requirements are given in JSAR-OPS 3.180(a)(3)and 3.180(b), and JAR-OPS 3.185.

AUA-OPS 3.890 Maintenance Responsibility

(a) An operator shall ensure the airworthiness of a helicopter and serviceability of both operational and emergency equipment by (See AMC OPS 3.890(a)):

(1) The accomplishment of preflight inspections (See AMC OPS 3.890(a)(1));

(2) The rectification to an approved standard of any defect and damage affecting the safe operation, taking into account the minimum equipment list and configuration deviation list if available for the helicopter type (See AMC OPS 3.890(a)(2));

(3) The accomplishment of all maintenance in accordance with the approved operator's helicopter maintenance program specified in JAR-OPS 3.910 (See AMC OPS 3.890(a)(3));

(4) The analysis of the effectiveness of the operator's approved helicopter maintenance programme (See AMC OPS 3.890(a)(4));

(5) The accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement made mandatory by the Authority. (See AMC OPS 3.890(a)(5));

(6) The accomplishment of modifications in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy. (See AMC OPS 3.890(a)(6));

(b) An operator shall ensure that the Certificate of Airworthiness for each helicopter operated remains valid in respect of:

(1) The requirements in sub-paragraph (a) above;

(2) Any calendar expiry date specified in the Certificate; and

(3) Any other maintenance condition specified in the Certificate.

(c) The requirements specified in sub-paragraph (a) above must be performed in accordance with procedures acceptable to the Authority.

AUA-OPS 1.893 Maintenance Management

(a) An operator must be appropriately approved in accordance with the requirements of AUA-RLW to carry out the requirements specified in JAR-OPS 1.890(a)(2), (3), (5) and (6) except when the Authority is satisfied that the maintenance can be contracted to an organization that is appropriately EASA Part 145 approved/accepted, and accepted by the Authority.

(b) An operator must employ a person or group of persons acceptable to the Authority to ensure that all maintenance is carried out in accordance with the Maintenance Management Exposition, on time, and to an approved standard such that the maintenance responsibility requirements in AUA-OPS 3.890 are satisfied. The person, or senior person, as appropriate, is the nominated postholder referred to in JAR-OPS 3.175 (i)(2). The Nominated Postholder for maintenance is also responsible for any corrective action resulting from the quality monitoring of JAR-OPS 3.900(a). (See AMC OPS 3.895 (b)).

(c) The Nominated Postholder for Maintenance should not be employed by a maintenance organization under contract to the Operator, unless specifically agreed by the Authority. (See AMC OPS 3.895(c)).

(d) When an operator is not appropriately approved as a maintenance organization in accordance with AUA-RLW, or if an operator subcontracts accomplishment of its maintenance activities, arrangements must be made with a maintenance organization as referred to in AUA-OPS 3.875 (a)(1) or (a)(2) to carry out the requirements specified in AUA OPS 3.890(a)(2), (3), (5) and (6). Except as otherwise specified in paragraphs (e), (f) and (g) below, the arrangement must be in the form of a written maintenance contract between the operator and the maintenance organization detailing the functions specified in AUA-OPS 3.890(a)(2), (3), (5) and (6) and defining the support of the quality functions of AUA-OPS 3.900. Aeroplane base and scheduled line maintenance and engine maintenance contracts, together with all amendments, must be acceptable to the Authority. The Authority does not require the commercial elements of a maintenance contract. (See AMS OPS 3.895(d)).

(e) Notwithstanding paragraph (d) above, the operator may have a contract with an organization that is not EASA Part 145 approved/accepted, provided that:

(1) forhelicopter or engine maintenance contracts, the contracted organization is an Aruban AOC holder or a JAR-OPS Operator of the same type of helicopter,

(2) all maintenance is ultimately performed by JAR-145 approved/accepted organizations,

(3) such a contract details the functions specified in AUA-OPS 3.890(a)(2), (3), (5) and (6) and defines the support of the quality functions of AUA-OPS 3.900,

(4) the contract, together with all amendments, is acceptable to the Authority. The Authority does not require the commercial elements of a maintenance contract. (See AMC OPS 3.895(e)).

(f) Notwithstanding paragraph (d) above, in the case of a helicopter needing occasional line maintenance, the contract may be in the form of individual work orders to the Maintenance Organization. (See IEM-OPS 3.895(f)&(g).

(g) Notwithstanding paragraph (d) above, in the case of helicopter component maintenance, including engine maintenance, the contract may be in the form of individual work orders to the Maintenance Organization (See IEM-OPS 3.895(f)&(g)).

(h) An operator must provide suitable office accommodation at appropriate locations for the personnel specified in sub-paragraph (b) above. (See AMC OPS 3.895(h)).

AUA-OPS 3.900 Quality System

(a) For maintenance purposes, the operator's quality system, as required by JAR-OPS 3.035, must additionally include at least the following functions:

(1) Monitoring that the activities of JAR-OPS 3.890 are being performed in accordance with the acceptable procedures;

(2) Monitoring that all contracted maintenance is carried out in accordance with the contract; and

(3) Monitoring the continued compliance with the requirements of this Subpart.

(b) Where the operator is approved as a maintenance organization in accordance with AUA-RLW, the quality system may be combined with the quality system required by AUA-RLW.

AUA-OPS 3.905 Operator's Maintenance Management Exposition

(a) An operator must provide an operator's Maintenance Management Exposition containing details of the organization structure (See AMC OPS 3.905(a)) including:

(1) The nominated postholder responsible for the maintenance system required by JAR-OPS 3.175(i)(2) and the person, or group of persons, referred to in AUA- OPS 3.895(b));

(2) The procedures that must be followed to satisfy the maintenance responsibility of AUA-OPS 3.890 and the quality functions of AUA-OPS 3.900, except that where the operator is appropriately approved as a maintenance organization in accordance with AUA-RLW, such details may be included in the exposition required by AUA-RLW.

(b) The design of the operator's maintenance management exposition shall observe human factors principles.

(c) The operator shall ensure that the maintenance control manual is amended as necessary to keep the information contained therein up to date.

(d) An operator's maintenance management exposition and any subsequent amendment must be approved by the Authority.

(e) Copies of all amendments to the operator's maintenance management exposition shall be furnished promptly to all organizations or persons to whom the manual has been issued.

(f) The operator shall provide the Authority and the State of Registry (if applicable) with a copy of the operator's maintenance management exposition, together with all amendments and/or revisions to it and shall incorporate in it such mandatory material as the Authority or the State of Registry (if applicable) may require.

AUA-OPS 3.910 Operator's Helicopter Maintenance Programme

(a) An operator must ensure that the helicopter is maintained in accordance with the operator's helicopter maintenance programme. The programme must contain details, including frequency, of all maintenance required to be carried out. The programme will be required to include a reliability programme when the Authority determines that such a reliability programme is necessary. (See AMC OPS 3.910(b)).

(b) The operator's approved helicopter maintenance programme must be subject to periodic reviews and amended when necessary. The reviews will ensure that the programme continues to be valid in light of operating experience whilst taking into account new and/or modified maintenance instructions promulgated by the Type Certificate holder. (See AMC OPS 3.910(b)).

(c) The operator's approved helicopter maintenance programme must reflect applicable mandatory regulatory requirements addressed in documents issued by the Type Certificate holder to comply with JAR-21.61, or equivalent requirements issued by the State of Design. The maintenance programme shall include all information required by the authority. This includes, but shall not be limited to, the following:

1. maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the helicopter;

2. when applicable, a continuing structural integrity programme;

3. procedures for changing or deviating from (1) and (2) above; and

4. when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and engines. (See AMC OPS 3.910(c))

(d) The design of the operator's helicopter maintenance programme observe human factors principles.

(e) An operator's helicopter maintenance programme and any subsequent amendment must be approved by the Authority. (See AMC OPS 3.910(d)).

(f) Copies of all amendments to the operator's maintenance programme shall be furnished promptly to all organizations or persons to whom the manual has been issued.

AUA-OPS 3.915 Operator's Helicopter Technical Log

(a) An operator must use a helicopter technical log system containing the following information for each helicopter:

(1) Information about each flight necessary to ensure continued flight safety;

(2) The current helicopter certificate of release to service;

(3) The current maintenance statement giving the helicopter maintenance status of what scheduled and out-of-phase maintenance is next due except that the Authority may agree to the maintenance statement being kept elsewhere;

(4) All outstanding deferred defects that affect the operation of the helicopter; and

(5) Any necessary guidance instructions on maintenance support arrangements.

(b) The helicopter technical log system and any subsequent amendment must be approved by the Authority.

AUA-OPS 3.920 Maintenance Records

(a) An operator shall ensure that the aeroplane technical log is retained for 24 months after the date of the last entry.

(b) An operator shall ensure that a system has been established to keep, in a form acceptable to the Authority, the following records for the periods specified:

1. All detailed maintenance records in respect of the aeroplane and any aeroplane component fitted thereto – 24 months after the aeroplane or aeroplane component was released to service;

2. The total time and flight cycles as appropriate, of the aeroplane and all life- limited aeroplane components – 12 months after the aeroplane has been permanently with drawn from service;

3. The time and flight cycles as appropriate, since last overhaul of the aeroplane or aeroplane component subjected to an overhaul life – Until the aeroplane or aeroplane component overhaul has been superseded by another overhaul of equivalent work scope and detail;

4. The current aeroplane inspection status such that compliance with the approved operator's aeroplane maintenance programme can be established – Until the aeroplane or aeroplane component inspection has been superseded by another inspection, of equivalent work scope and detail;

5. The current status of airworthiness directives applicable to the aeroplane and aeroplane components – 12 months after the aeroplane has been permanently withdrawn from service; and

6. Details of current modifications and repairs to the aeroplane, engine(s), propellers(s) and any other aeroplane component vital to flight safety – 12 months after the aeroplane has been permanently withdrawn from service. (See IEM OPS 3.920(b)(6)).

(c) An operator shall ensure that in the event of a temporary change of operator, the records shall be made available to the new operator. An operator shall ensure that when an aeroplane is permanently transferred from one operator to another operator the records specified in paragraphs (a) and (b) are also transferred and the time periods prescribed will continue to apply to the new operator. (See AMC OPS 3.920(c)).

AUA-OPS 3.925 Continuing Airworthiness

(a) The operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide the information as prescribed by the Authority and report through a system specified by the Authority.

(b) The operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organization responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

(c) All modifications and repairs shall comply with airworthiness requirements acceptable to the Authority. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

AUA-OPS 3.930 Continued validity of the Air Operator Certificate in Respect of the Maintenance System

An operator must comply with JAR-OPS 3.175 and 3.180 to ensure continued validity of the air operator's certificate in respect of the maintenance system.

AUA-OPS 3.935 Equivalent Safety Case

An operator shall not introduce alternative procedures to those prescribed in this Subpart unless needed and an equivalent safety case has first been approved by the Authority.

AUA-OPS 3.940 Composition of flight crew (See Appendix 1 to AUA-OPS 3.940)

(a) An operator shall ensure that:

(1) The composition of the flight crew and the number of flight crew members at designated crew stations are both in compliance with, and no less than the minimum, specified in the Aeroplane Flight Manual;

(2) The flight crew includes additional flight crew members when required by type of operation, and is not reduced below the number, specified in the Operations Manual;

(3) All flight crew members hold an applicable and valid license acceptable to the Authority and are suitably qualified and competent to conduct the duties assigned to them;

(4) Procedures are established acceptable to the Authority, to prevent the crewing together of inexperienced flight crew members; and

(5) One pilot amongst the flight crew is designated as the commander who may delegate the conduct of the flight to another suitably qualified pilot.

(b) Pilots. An operator shall ensure that:

(1) Commanders and co-pilots on an IFR-flight hold a valid instrument rating;

(2) For IFR-operations using helicopters with a maximum approved passenger seating configuration of more than 9:

(i) The minimum flight crew is two qualified pilots, and

(ii) The commander holds a valid Airline Transport pilot's Licence (Helicopter) (ATPL(H));

(3) For operations using helicopters with a maximum approved passenger seating configuration of more than 19:

(i) The minimum flight crew is two qualified pilots;

(ii) The commander holds a valid Airline Transport Pilot's Licence (Helicopter (ATPL(H)).

(c) Helicopters not covered by sub-paragraph (b)(2) above may be operated by a single pilot, except by night or under IFR.

Appendix 1 to AUA-OPS 3.940

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AUA-OPS 3.1040 General rules for Operation Manuals

(a) An operator shall ensure that the Operations Manual contains all instructions and information necessary for operations personnel to perform their duties.

(b) An operator shall ensure that the contents of the Operations Manual, including all amendments or revisions, do not contravene the conditions contained in the Air Operator Certificate (AOC) or any applicable regulations and must be acceptable to, or, where applicable, approved by the Authority. (See IEM OPS 3.1040(b).)

(c) An operator must prepare the Operations Manual in the English language. In addition, an operator may translate and use that manual, or parts thereof, into another language. (See IEM OPS 3.1040(c).)

(d) Should it become necessary for an operator to produce new Operations Manuals or major parts or volumes thereof, he must comply with sub-paragraph (a) above.

(e) An operator may issue an Operations Manual in separate volumes.

(f) An operator shall ensure that all operations personnel have easy access to a copy of each part of the Operations Manual which is relevant to their duties. In addition, the operator shall supply crew members with a personal copy of, or sections from, Parts A and B of the Operations Manual as are relevant for personal study.

(g) An operator shall ensure that the Operations Manual is amended or revised so that the instructions and information contained therein are kept up to date. The operator shall ensure that all operations personnel are made aware of such changes that are relevant to their duties.

(h) Each holder of an Operations Manual, or appropriate parts of it, shall keep it up to date with the amendments or revisions supplied by the operator.

(i) An operator shall supply the Authority with intended amendments and revisions in advance of the effective date. When the amendment concerns any part of the Operations Manual which must be approved in accordance with JAR-OPS, this approval shall be obtained before the amendment becomes effective. When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

(j) An operator shall incorporate all amendments and revisions required by the Authority.

(k) An operator must ensure that information taken from approved documents; and any amendment of such approved documentation, is correctly reflected in the Operations Manual and that the Operations Manual contains no information contrary to any approved documentation. However, this requirement does not prevent an operator from using more conservative data and procedures.

(l) An operator must ensure that the contents of the Operations Manual are presented in a form in which they can be used without difficulty.

(m) An operator may be permitted by the Authority to present the Operations Manual or parts thereof in a form other than on printed paper. In such cases, an acceptable level of accessibility, usability and reliability must be assured.

(n) The use of an abridged form of the Operations Manual does not exempt the operator from the requirements of JAR-OPS 3.130.

AUA-OPS 3.1070 General

This Subpart applies in relation to any helicopter registered in Aruba which is either:

(a) engaged on a flight for the purpose of public transport; or

(b) operated by an air transport undertaking:

AUA-OPS 3.1075 Definitions

In this Subpart, the following expressions shall, except where the context otherwise

requires, have the meanings hereby respectively assigned to them, that is to say:

(a) "flight time", in relation to any person, means all time spent by that person in a helicopter whether or not registered in Aruba while it is in flight and he is carried therein as a member of the crew thereof;

(b) "day" means a continuous period of 24 hours beginning at midnight Greenwich Mean Time.

(c) “rest”, means period of time on the ground during which a flight crew member is relieved of all duties by the operator.

For the purpose of this Subpart, a helicopter shall be deemed to be in flight from the moment the helicopter first moves under its own power for the purpose of taking off until the rotors are next stopped.

AUA-OPS 3.1080 Operator's Responsibilities

(a) The operator of a helicopter to which this Subpart applies shall not cause or permit that helicopter to make a flight unless:

(1) he has established a scheme for the regulation of flight times for every person flying in that helicopter as a member of its crew. Specific factors to be taken into consideration are for establishment of the scheme are:

i. the crew composition of the aircraft;
ii. the probability of operational delays;
iii. the type of aircraft and route complexities such as traffic density, navigation aids, standard of equipment carried,
iv. communication difficulties, and high altitude flying in unpressurized aircraft, or flying with high cabin altitudes in pressurized aircraft;

v. the proportion of night flying involved;
vi. the extent to which the accommodation at layovers is such as to permit crews to secure real rest;
vii. the number of landings and take-offs;
viii. the need for an orderly scheduling system, giving a high degree of stability (for this, provision of adequate reserves
ix. is an important factor);
x. the sleep deprivation arising from interruption of the normal sleep/wake cycle; and
xi. the cockpit environment.

(2) the scheme is approved by the Authority subject to such conditions as it thinks fit;

(3) the scheme is incorporated in the operations manual required by this JAR-OPS 3.1045;

(4) the scheme is available to every person flying in that helicopter as a member of its crew;

(5) he has taken all such steps as are reasonably practicable to ensure that the provisions of the scheme will be complied with in relation to every person flying in that helicopter as a member of its crew.

(b) The operator of a helicopter to which this Subpart applies shall not cause or permit any person to fly therein as a member of its crew if he knows or has reason to believe that that person is suffering from, or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue while he is so flying as may endanger the safety of the helicopter or its occupants.

(c) The operator of a helicopter to which this Subpart applies shall not cause or permit any person to fly therein as a member of its flight crew unless the operator has in his possession an accurate and up-to-date record in respect of that person and in respect of the 28 days immediately preceding the flight showing:

(1) all his flight times; and

(2) brief particulars of the nature of the functions performed by him in the course of his flight times.

(d) For reasons of flight safety, the operator has the responsibility to ensure that crew members engaged in duties other than flight duties performed on behalf of the employer are provided with at least the minimum required rest periods before engaging in flight duties.

(e) The record referred to in paragraph (c) of this paragraph shall be preserved by the operator of the helicopter in accordance with JAR-OPS 1.1065.

AUA-OPS 3.1085 Responsibilities of Crew

(a) A person shall not act as a member of the crew of a helicopter to which this Subpart applies if he knows or suspects that he is suffering from any decrease in medical fitness, or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue as may endanger the safety of the helicopter or its occupants.

(b) A person shall not act as a member of the flight crew of a helicopter to which this Subpart applies unless he has ensured that the operator of the helicopter is aware of his flight times during the period of 30 days preceding the flight.

AUA-OPS 3.1090 Flight Times Limitations

A person shall not act as a member of the flight crew of a helicopter registered in Aruba if at the beginning of the flight the aggregate of all his previous flight times:

(a) during the period of 30 consecutive days expiring at the end of the day on which the flight begins exceeds 100 hours: or

(b) during the period of 12 months expiring at the end of the previous month exceeds 1000 hours:

Provided that this Subpart shall not apply to a flight made in a helicopter not flying for the purpose of public transport nor operated by an air transport undertaking, if at the time when the flight begins the aggregate of all the flight times of the aforesaid person since he was last medically examined and found fit by a person approved by the Authority within 25 hours of the intended flight.

JAR-OPS 3.1240 Training programmes (See ACJ OPS 3.1240)

(a) An operator shall establish, maintain and conduct approved training programmes which enable the operator's crew members to take appropriate action to prevent acts of unlawful interference, such as sabotage or unlawful seizure of aeroplanes and to minimise the consequences of such events, should they occur. The training programme shall be compatible with the National Aviation Security programme. Individual crew member shall have knowledge and competence of all relevant elements of the training programme.

(b) An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

(c) As a minimum, this programme shall include the following elements:

1. determination of the seriousness of any occurrence;

2. crew communication and coordination;

3. appropriate self-defence responses;

4. use of non-lethal protective devices assigned to crew members whose use is authorized by the Authority;

5. understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;

6. live situational training exercises regarding various threat conditions;

7. flight crew compartment procedures to protect the aeroplane; and

8. aeroplane search procedures and guidance on least-risk bomb locations where practicable.

(d) An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for

carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

Bijlage D

AIR OPERATOR CERTIFICATE

ARUBA

MINISTRY OF TOURISM TRANSPORTATION AND LABOUR

MINISTRY OF TOURISM, TRANSPORTATION AND LABOUR

Department of Civil Aviation

Department of Civil Aviation Aruba

AOC # **Expiry date:**	**(Operator Name)** Address: Telephone: Fax Email:	OPERATIONAL POINT OF CONTACT: Contact details, at which operational management can be contacted without undue delay, are listed in

This certificate certifies that **(operator name)** is authorized to perform commercial air operations as defined in the attached operational specifications, in accordance with the operations manual and the requirements of the Civil Aviation Act of Aruba (AB 1989 GT 58) and Regulations prescribed thereunder.

Date of issue: Revision:	THE MINISTER OF TOURISM, TRANSPORTATION AND LABOUR

Bijlage D

MINISTRY OF TOURISM TRANSPORTATION AND LABOUR

DIRECTIE LUCHTVAART ARUBA
DEPARTMENT OF CIVIL AVIATION ARUBA

INS 2.003

OPERATIONS SPECIFICATIONS
(subject to the approved conditions in the operations manual)

ISSUING AUTHORITY CONTACT DETAILS [1]

Telephone: Fax: E-mail:

AOC#[2]: Operator name[3]: Date [4] : Signature:
Dba trading name:

Aircraft model [5] :

Types of operation: Commercial air transportation ☐ Passenger ☐ Cargo ☐ Other: [6]

Area(s) of operation [7] :

Special limitations [8] :

SPECIAL AUTHORIZATIONS		YES	NO	SPECIFIC APPROVALS [9]	REMARKS
Dangerous goods		☐	☐		
Low visibility operations Approach and landing Take-off		☐ ☐	☐ ☐	CAT[10]: RVR: m DH: ft RVR[11]: m	
RVSM[12]	☐ N/A	☐	☐		
ETOPS[13]	☐ N/A	☐	☐	Maximum diversion time[14] : minutes	
Navigation specifications for PBN operations[15]		☐	☐		[16]
Continuing airworthiness		X	X	[17]	
Other[18]		☐	☐		

Bijlage D

Notes:
1. Telephone and fax contact details of the authority, including the country code. E-mail to be provided if available.
2. Insert the associated AOC number.
3. Insert the operator's registered name and the operator's trading name, if different. Insert "dba" before the trading name (for "doing business as").
4. Issuance date of the operations specifications (dd-mm-yyyy) and signature of the authority representative.
5. Insert the Commercial Aviation Safety Team (CAST)/ICAO designation of the aircraft make, model and series, or master series, if a series has been designated (e.g. Boeing-737-3K2 or Boeing-777-232). The CAST/ICAO taxonomy is available at: http://www.intlaviationstandards.org/.
6. Other type of transportation to be specified (e.g. emergency medical service).
7. List the geographical area(s) of authorized operation (by geographical coordinates or specific routes, flight information region or national or regional boundaries).
8. List the applicable special limitations (e.g. VFR only, day only).
9. List in this column the most permissive criteria for each approval or the approval type (with appropriate criteria).
10. Insert the applicable precision approach category (CAT I, II, IIIA, IIIB or IIIC). Insert the minimum RVR in metres and decision height in feet. One line is used per listed approach category.
11. Insert the approved minimum take-off RVR in metres. One line per approval may be used if different approvals are granted.
12. "Not applicable (N/A)" box may be checked only if the aircraft maximum ceiling is below FL 290.
13. Extended range operations (ETOPS) currently applies only to twin-engined aircraft. Therefore the "Not applicable (N/A)" box may be checked if the aircraft model has more than 2 engines. Should the concept be extended to 3 or 4-engined aircraft in the future, the "Yes" or "No" checkbox will be required to be checked.
14. The threshold distance may also be listed (in NM), as well as the engine type.
15. Performance-based navigation (PBN): one line is used for each PBN specification authorization (e.g. RNAV 10, RNAV 1, RNP 4), with appropriate limitations or conditions listed in the "Specific Approvals" and/or "Remarks" columns.
16. Limitations, conditions and regulatory basis for operational approval associated with the performance-based navigation specifications (e.g. GNSS, DME/DME/IRU). Information on performance-based navigation, and guidance concerning the implementation and operational approval process, are contained in the Performance-based Navigation (PBN) Manual *(Doc 9613).*
17. Insert the name of the person/organization responsible for ensuring that the continuing airworthiness of the aircraft is maintained and the regulation that requires the work, i.e. within the AOC regulation or a specific approval (e.g. EC2042/2003, Part M, Subpart G).
18. Other authorizations or data can be entered here, using one line (or one multi-line block) per authorization (e.g. special approach authorization, MNPS, approved navigation performance)

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